



PLATEAU



SATERN Learning Management System (LMS) Solution Design Document

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General Physics

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Change Control



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Release Date	Version	Section	Modified By	Description of Change
5/20/2005	1.0	All	Don Schoenberg	Initial SDD Draft
6/9/05	2.0	All	Don Schoenberg	Updated with feedback from workshops
6/17/05	3.0	Change Control; footers; front page; System Configuration; Domains, Domain Types, and Domain Restrictions; Appendix C	Don Schoenberg	Updated document date and version; Enabled Menu > Learning item (pg. 25); Updated the PUBLIC domain so that it is not a child domain of NASA (pg. 30); Removed the 'Reset Learner Passwords' workflow from the Help Desk role - this is deceptively named and gives the role the ability to reset the DEFAULT Learner passwords. (pg. 110); Added the 'Change User Password' workflow to the Help Desk role (pg. 111) -
7/6/05	3.1	All	Don Schoenberg	Removed 'Draft' watermark; removed 'draft' from footer; changed version and date
7/25/05	4.0	All	Alison Gary	Updated with feedback from workshops to reflect Phase II of the project.
7/26/05	4.1	ALL	Scott Hardy	Updated with my corrections.
8/05/05	4.2	ALL	Sasan Dehghan, Andy Wortman, Alison Gary, Manoli Salpeas, Scott Hardy	Accepted all old changes; Updated with comments from NASA (delivered to GP on 8/4/05)
1/10/06	5.0	ALL	Billy Biggs, Maya Litvak, Andy Wortman	Updated document to reflect all changes since August 9, 2005.
2/20/06	6.0	ALL	Billy Biggs, Maya Litvak, Scott Hardy	Updated document with latest requirements and configuration changes per NASA since 1/10/06.
4/18/06	6.0	ALL	Billy Biggs	Updated document with configuration changes during Alpha/UA testing
3/26/07	7.0	ALL	Steven Bliss, Kevin Herrington, Jason Nelson, Dan Costello, Maya Litvak,	Updated document with configuration changes, system updates and system enhancements implemented since system went into production.



Release Date	Version	Section	Modified By	Description of Change
			Mike Maurath, Dennis Conrad, Sean Hoover, Yvette Robinson	
9/15/07	7.1	ALL	Steven Bliss, Kevin Herrington, Vessie Means, Velvet Knight, Rhonda Sayne	Updated document with configuration changes, added disciplines, work flows, and supporting changes.
12/4/07	7.2	8, 11, 14	Steven Bliss	Updated document for changes related to interfaces, work flows, and supporting configurations



Table of Contents

<i>Table of Contents.....</i>	<i>7</i>
1) Introduction.....	9
Training Organization and Processes.....	9
2) System Configuration.....	10
2.1 Application Admin Notes.....	10
2.2 Automatic Processes Settings	16
2.3 Notification Templates	22
2.4 Application Configuration Files	24
2.5 Branding Styles.....	28
2.6 Sites (Default)	28
2.7 Internationalization and Localization (Default).....	28
2.8 External Reports (Out of box)	29
2.9 User Management (Default).....	29
3) Domains, Domain Types and Domain Restrictions	30
3.1 Domain Restrictions.....	31
4) Organizations.....	33
5) Role Management.....	34
5.1 Administrative Users	34
5.2 Learner Attributes.....	38
5.3 Business Processes.....	40
5.4 Class (of Learners)	40
5.5 Custom Columns.....	41
5.6 Naming Conventions.....	41
6) Learning Management	42
6.1 Items	42
6.2 Curricula / Sub-Curricula.....	59
6.3 Catalogs	61
7) Online Content Management	64
7.1 Objectives	64
7.2 Questions	65
7.3 Exam and Survey Objects	66
7.4 AICC Advance System Administrator Settings	66
7.5 Question Editor Advance System Administration Settings	67
7.6 Naming Conventions.....	67
8) Scheduling.....	69
8.1 Business Processes.....	71
9) Commerce	72
9.1 Account Code.....	72
9.2 Cancellation Policies	72
9.3 Master Inventory	72
9.4 Order Management.....	72
9.5 Pricing Rules	72
9.6 Unused Order Tickets	73
9.7 Naming Conventions.....	73



10) Resource Management.....	74
10.1 Equipment.....	74
10.2 Facility	77
10.3 Holidays	77
10.4 Instructors	77
10.5 Location.....	77
10.6 Materials.....	78
10.7 Region.....	78
10.8 Work Week Profile	78
10.9 Naming Conventions.....	79
11) Plateau Standard Reports.....	80
11.1 Assessment Reports	80
11.2 Competency Reports	80
11.3 Document Reports	81
11.4 Exam and Survey Reports	81
11.5 Item and Curriculum Reports	82
11.6 Learner Reports	83
11.7 Reference Reports	85
11.8 Registration Reports	85
11.9 Resource Reports	86
11.10 Scheduling Reports.....	87
11.11 Custom Reports	88
12) Testing Approach.....	89
12.1 Configuration Prototype and Unit Testing.....	89
12.2 User Acceptance Testing (UAT)	89
12.3 Production Verification Testing (PVT).....	90
12.4 Online Content	91
13) Branding User Interface Customization.....	92
13.1 URL	92
13.2 Color Scheme	92
13.3 Fonts	92
13.4 Buttons	92
13.5 Layout	92
13.6 Logos	93
13.7 Text	93
13.8 SATERN Learner Interface Login	93
13.9 SATERN Administrator Interface Login	93
14) System Architecture.....	95
14.1 NASA Environments	95
14.2 NASA Production Environment.....	97
14.3 System Architecture Diagram	98
14.4 System Performance	98
14.5 Environments Overview	99
14.6 Custom Content Uploading Process Overview.....	100



1) Introduction

The purpose of this document is to outline and define the key items of the Solution Design for the NASA Learning Management System (LMS) Project. It presents a detailed configuration solution based upon information gained through project work sessions for the NASA LMS.

The Solution Design Document (SDD) will serve as the one and only reference document for the NASA LMS Plateau 5.5 configuration. The information and details contained within meet the requirements as specified in the interagency agreement and detail a series of workshops between GP & Plateau consultants and NASA core project team members. The present SDD will include all references necessary for installing the Plateau 5.5 LMS software, configured to meet the NASA requirements. The SDD will outline the complete solution to NASA that will facilitate the development, management, and delivery of learning needed to NASA employees. This solution will employ an LMS that uses an intuitive learning environment that is branded for use by NASA.

The information collected in this document will serve as a road map for the development of the NASA Learning Management System. This document is considered a living document, and will be modified several times before the final sign off.

Training Organization and Processes

The future state of the NASA-LMS will be determined by the NASA Steering Committee. As part of the project milestone review process, the NASA LMS Phase III results will be reviewed and evaluated. If these results are approved, an evolution into a NASA Enterprise-wide Learning Management System will take place. As part of LMS competency and assessment functionality provided with Plateau 5.5 Performance Management, add-on items will then be setup in a prototype for further evaluation.



2) System Configuration

The information below contains current configurations settings for Systems Configurations.

2.1 Application Admin Notes

Global Variables & Settings

General Settings: General settings provide the basic configuration for the Plateau LMS. For the language and date/time formats these values act as the default for the system. These values may be changed within the learner's access to support individual needs. The Site Prefix supports data migration/replication from one database offering to another in the sense of avoiding primary key violations. Activation of substitutes permits the Plateau LMS to award substitutes, if the relationships are established on the item records.

Default Learners Language:	English (American)
Default Learners Date Format:	MM/DD/YYYY
Default Learners Time Format:	12 Hours
Default Admin Language:	English (American)
Default Admin Date Format:	MM/DD/YYYY
Default Admin Time Format:	12 Hours
Currency Symbol:	\$
Percentage Symbol:	%
Site Prefix:	
Admin User ID:	PLATEAU
Curriculum Basis Date (MM/DD/YYYY): This date is used for period based curriculum calculation.	01/01/2007
Enable Substitutes:	Yes

Mail Settings

Mail Settings: Activation of email is required to permit the Plateau LMS to send notifications to users and learners. The frequency of the distribution should be set based upon considerations for network traffic administration and timeliness. Enabling vCalendar permits the system to provide the learners with an attachment that can be automatically entered into their Outlook calendar. It is recommended that these email accounts be established to specifically support the administration of the Plateau LMS. These email accounts should not be someone's personal email account.

Enable Email:	Yes
SMTP Server:	172.28.6.102
Admin Notification Email:	NASA-satern@nasa.gov
Learner Notification Email:	NASA-satern@nasa.gov
Email Frequency (minutes):	1 minute
Enable vCalendar Attachments:	Yes



Electronic Signature Settings: Electronic signature settings provide another level of security in the form of a PIN when recording learning events. Once enabled, disabling electronic signatures will automatically authenticate all unauthenticated learning events.

Enable Electronic Signatures:	No
Administrator Email:	
Enable PIN Expiration:	No
PIN Expires After (days):	
Count Between Repeated PIN:	
Minimum PIN Change Period (days):	
Administrator Default Esig Meaning Code:	
Learners Default Esig Meaning Code:	
Administrator Esig Message:	
Learners Esig Message:	

Esig Meaning Code

A Meaning Code allows clients to enter a reason or meaning upon change of the data requiring electronic signatures. An administrator is able to choose from a list of meaning codes when signing but a learner will be forced to use the meaning code set by the administrator.

A meaning code may identify the Learning Event record as being a review, an approval, or an authorship associated with the signature to name a few possibilities.

Best Practice: A list of meaning codes have been included below:

eSignature Meaning Codes: An eSignature meaning code allows administrators to enter a reason when any data is changed requiring and electronic signature. An administrator is able to choose from a list of meaning codes but a student is required to use the meaning code set by the administrator. A meaning code may identify the Learning Event record as being a review, an approval, or an authorship associated with the signature.

Meaning Code ID (30 Char)	Admin/Student	Description (40 Char)
ADMIN RECORDED	Admin	Administrator Signature
APPROVED	Admin	Approved by Administrator
DELETED	Admin	Deleted by Administrator
MODIFIED	Admin	Modified by Administrator
RECORDED ON BEHALF OF	Admin	Administrator Recorded on Behalf of
STUDENT RECORDED	Student	Student Signature
VERIFIED	Admin	Verified by Administrator



Approval Process Settings

The training approval feature allows an organization to align their learning approvals with their business practices. By allowing multiple levels of approvals, an organization can implement its approvals as necessary, and by using Approval Roles with Domain control the approvals can be done by the right people in the organization rather than by one central administrator. In addition, if the external training module is licensed, then the organization can build business processes around learning such as seminars, conferences, or anything else that is not normally tracked in the Plateau LMS.

Approval Process Settings*: These settings select the default Approval Process IDs for both External Submission and External Verification.	
External Submission Approval Process ID:	EXTERNAL
External Verification Approval Process ID:	
External Submission Learner Message:	
Default Internal Approval Process ID:	

*These are default approval processes. NASA has decided **not** to use defaults.

Collaboration

Collaboration enables learners to consult with subject matter experts, form communities of practice, and participate in bulletin board-style discussion groups centered on training topics. Learners can search threads for older discussions on a topic of interest in order to make use of institutional knowledge.

Community Settings

Community Settings: This module is used to indicate when the system is to automatically create communities: when Items are created and/or when Scheduled Offerings are created. You may choose to have communities created automatically by the system in both cases. These setting effect all items and schedule instances when turned on.	
Automatically create a community when an Item is created:	No
Automatically create a community when a Schedule Offering is created:	No

Password Aging Settings

Password Aging Settings: These settings apply to both administrators and learners.	
Enable Password Aging:	Yes
Password Expires After (days):	60 days



Login Lockout Settings

Login Lockout Settings: The Login Lockout settings control the login process to the learner interface.	
Login Attempts:	4 attempts
Time Period for Login Attempts (hrs):	1 hour

Auto Generate IDs

ID	Enable	ID Prefix
Item	No	
Equipment	No	
Instructor	No	Best Practice: Instructor ID same as the instructor's Learner ID.
Learners	No	

Resync Learning Events

Resync Learning Events: This process should be executed after learning requirements or learning event data is inserted manually into the database. All learners will be affected so this process may take a long time to complete. This action must be scheduled to run in the background.	
Schedule This Job:	No
Schedule Job Date (M/D/YYYY):	
Schedule Job Time (HH:MM:SS AM):	
Time Zone:	
Notify Via Email:	
Email Address:	

Password Policy

The user's password has to be compliant with the following rules:

- The length of the password must be between 8 and 20 characters.
- The password must contain following types of characters:
 1. English uppercase and lower case letters.
 2. Arabic numerals (0, 1, 2...9).
 3. Non alphanumeric special characters (!@#\$\$%^&*()-_+={}[]<>?/'";:~\)
- Single characters cannot be repeated more than twice in a row.
- The password cannot contain user name (login ID).
- The password cannot contain user's first name or last name.
- The new password cannot be same as any of the previous 12 passwords.



Learners Password Settings

Learners Default Password (1-40 Char):	Will be provided to learner in separate email
---	--

Administrator Password Settings

This feature is used to invalidate ALL administrative passwords used for the Plateau LMS. When you click Expire Password, the system automatically renders invalid (read Expired) the passwords for administrative users. They will ALL be required create NEW passwords to access the Plateau LMS.

Learners Settings

Prevent learners scheduling conflicts:	No
Enable Learner to choose the Schedule Offering Time Zone display:	No
Default to Learner's/User's Time Zone for display of Schedule Offerings:	No
Allow learners to create a new account at the Plateau Learning login page.	Yes
Allow learners to Choose an ID while creating a new account.	No
Allow learners to change personal information:	Yes
Allow learners to change regional information:	Yes
Allow self-registration creation to proceed as long as the pre-requisites will be completed prior to the scheduled start date.	No
Remove associated item from learning plan when admin un-registers learner(s) from scheduled offering(s):	Yes
Allow learners to assess competencies of their own:	No
Send Notifications to Instructors when Learners withdraw from a Scheduled Offering	Yes

Learners Learning Event Recording Defaults

Note: These settings can be overwritten at the item level.

Learners can record learning events for items:	No
Supervisors can record learning events for items:	No
Learners can record learning events for external events:	No
Supervisors can record learning events for external events:	No



Learning Plan Notification Settings

Learning Plan Notification Settings: This module will allow you to review and specify how learners and their supervisors are notified of changes to their learning activities.	
Notify Learner when item added to their learning plan	Yes
Notify Learner when item modified in their learning plan	Yes
Notify Learner when item removed from their learning plan	Yes
Notify Supervisor when learner successfully completes an item	No
Notify Supervisor when learner unsuccessfully completes an item	No
Allow Learner to modify Learning Plan notification settings:	No

Competency Assessment Settings

The competency assessment settings are used to adjust minimum and maximum mastery levels for competency assessments and to determine how competency assessment gaps are calculated.

Competency Assessment Level Calculation: Select one of the following 3 options.	
Single Most Recent Assessment:	
Collection of Assessments in Last (#) of Days (1000,001):	
Collection of Assessments Since (1/1/2003):	
Assessment Process Results:	Options: Yes, No
Leaner Self-Assessments:	Options: Yes, No
Administrator Assessments:	Options: Yes, No
Item Completion:	Options: Yes, No

Default Registration Statuses

These default registration statuses are categories used to manage individual registration statuses that appear when a learner is registered for a schedule offering.

Registration Type ID (1 Char)	Description
ENROLL	ENROLLED
WAITLIST	WAITLISTED
PENDING	PENDING
NOSHOW	NO SHOW



CANCELLED

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2.2 Automatic Processes Settings

Email Address for Automatic Processes

In addition to the normal recipients of notifications, an additional email recipient can be specified for each of these automatic processes. This creates a record of all email notifications and would be useful for a system administrator to verify notifications.

Activate Individual Development Plans

This process schedules when Individual Development Plans (IDP) are activated.

Schedule This Process:	Options: Yes	
Schedule Frequency:	<input type="checkbox"/> Hourly	Every ## of Hours
	<input checked="" type="checkbox"/> Daily	
	<input type="checkbox"/> Weekly	Day:
	<input type="checkbox"/> Monthly	Date:
Time of Day:	1:00 PM	
Time Zone:	CST	
Email Address:	None	

Schedule Offering Delivery Notification

This process sends e-mail "Registration Reminders" to learners who are enrolled in upcoming schedule offerings and their supervisors.

Schedule This Process:	Yes	
Schedule Frequency:	<input type="checkbox"/> Daily	
	<input checked="" type="checkbox"/> Weekly	Day: Wednesday
	<input type="checkbox"/> Monthly	Date:
Time of Day:	01:00 AM	
Time Zone:	EST	
Threshold (An offering is included in this process if its scheduled start date is within the number of calendar days you specify in the Threshold field):	10 Days	
Email Address:	None	



Assignment Profile Synchronization

This process reconciles changes in the attributes of learners and/or the Assignment Profiles to which they are assigned. For learners to be featured on the list for a related Assignment Profile, their attributes **MUST** match that of the associated Assignment Profile. Whenever you make changes to the attributes of a learner and his/her attributes become mismatched to that of the associated Assignment Profile, this process will run to reconcile the changes.

Schedule This Process:	Yes	
Schedule Frequency:	<input type="checkbox"/> Hourly	
	<input checked="" type="checkbox"/> Daily	
	<input type="checkbox"/> Weekly	Day:
	<input type="checkbox"/> Monthly	Date:
Time of Day:	9:00 AM	
Time Zone:	EST	
Email Address:	None	

Curriculum Clean-Up

This process searches for two or more revisions of the same item that are related in the database to the same curricula. If two (or more) revisions of an item are related to the same curricula, and both are "effective" (have an effective date before today's date), then the relationship between the earlier item(s) and the curricula is removed.

Schedule This Process:	Yes	
Schedule Frequency:	<input type="checkbox"/> Daily	
	<input checked="" type="checkbox"/> Weekly	Day: Thursday
	<input type="checkbox"/> Monthly	Date:
Time of Day:	12:00 AM	
Time Zone:	CST	
Email Address:	None	



Learning Expiration Notification

This process sends e-mail notifications to learners and their supervisors when learning needs are approaching the item required date or the curriculum next action date.

Schedule This Process:	Yes	
Schedule Frequency:	<input type="checkbox"/>	
	<input checked="" type="checkbox"/> Weekly	Day: Monday
	<input type="checkbox"/>	
Time of Day:	01:00 AM	
Threshold:	30 Days	
Reminder Period (The value you enter into the Reminder Period field determines the interval, in days, between notification messages to a learners regarding their need to complete a given item. For example, if the value in Threshold is set to 30 and the Reminder Period is set to 7 , then a learners will receive 4 email messages (1 per week for one month before the Next Action Date) reminding them of their need to complete the item):	7	
Time Zone:	EST	
Email Address:	None	

Waitlist to Request List

This process finds all schedule offerings that have begun and creates item requests for all waitlisted learners.

Schedule This Process:	Yes	
Schedule Frequency:	<input type="checkbox"/> Daily	
	<input type="checkbox"/> Weekly	Day:
	<input checked="" type="checkbox"/> Monthly	Date: The 15th of the Month
	<input type="checkbox"/>	
Time of Day:	12:30 PM	
Time Zone:	EST	
Email Address:	None	

Reset Online Items (each item is individually set based on "[Days from launch to expiration](#)" value)

This process finds all online items that were initially launched more than a specified number of days and are still incomplete. The process deletes the learner item module details forcing the learner to start the item over again.



Schedule This Process:	Yes	
Schedule Frequency:	<input type="checkbox"/> Daily	
	<input checked="" type="checkbox"/> Weekly	Day: Sunday
	<input type="checkbox"/> Monthly	Date:
Time of Day:	8:00 AM	
Time Zone:	EST	
Email Address:	None	

Item Scheduling Demand

This process monitors requests for items and notifies an administrator when the number of item requests reaches the minimum registration for a schedule offering. To enable this process, this item contact's email and the minimum registration field **MUST** be populated.

Schedule This Process:	Yes	
Schedule Frequency:	<input checked="" type="checkbox"/> Daily	
	<input type="checkbox"/> Weekly	
	<input type="checkbox"/> Monthly	Date:
Time of Day:	1:00 PM	
Time Zone:	EST	
Email Address:	NASA-saturn.support@nasa.gov	

Learning Plan Notifications

This process notifies learners and/or supervisors of learning plan changes based on the global settings and the schedule established by this APM. If the global settings are enabled and this APM is not scheduled, notifications will be sent immediately following a change to the learning plan.

Schedule This Process:	Yes	
Schedule Frequency:	<input type="checkbox"/> Hourly	
	<input type="checkbox"/> Daily	
	<input checked="" type="checkbox"/> Weekly	Day: Tuesday
	<input type="checkbox"/> Monthly	Date:
Time of Day:	03:00 AM	
Time Zone:	EST	
Email Address:	None	



VLS Attendance Processing

This automatic process is used to set up the time frame for the Virtual Learning System (VLS) to process attendance by learners.

Schedule This Process:	Options: Yes, No	
Schedule Frequency:	<input type="checkbox"/> Hours	Every # of Hours:
	<input type="checkbox"/> Daily	
	<input type="checkbox"/> Weekly	Day:
	<input type="checkbox"/> Monthly	Date:
Time of Day:		
Time Zone:		
Email Address:		

Expired Individual Development Plans

This process schedules when Individual Development Plans are expired.

Schedule This Process:	Options: Yes	
Schedule Frequency:	<input type="checkbox"/> Hours	Every # of Hours:
	<input checked="" type="checkbox"/> Daily	
	<input type="checkbox"/> Weekly	Day:
	<input type="checkbox"/> Monthly	Date:
Time of Day:	8:00 AM CST	
Time Zone:		
Email Address:	None	

Assessment Notification

This automatic process module is used to set up the time frame for when to check Assessment Processes for assessment end dates and rater approval dates and when to send deadline notification emails to participants in the assessment process.

Schedule This Process:	Options: Yes, No	
Schedule Frequency:	<input type="checkbox"/> Hours	Every # of Hours:
	<input type="checkbox"/> Daily	
	<input type="checkbox"/> Weekly	Day:
	<input type="checkbox"/> Monthly	Date:
Time of Day:		
Time Zone:		
Email Address:		



Clean-up Business Processes

This process is used to set up the time frame for the business cleanup process. When business processes are withdrawn or cancelled the process remains on the learner's record as an active business process. This APM will remove the withdrawn or cancelled processes cleaning up the admin's view in the system.

Schedule This Process:	Yes	
Schedule Frequency:	<input type="checkbox"/> Hours	Every # of Hours:
	<input type="checkbox"/> Daily	
	<input checked="" type="checkbox"/> Weekly	Wednesday
	<input type="checkbox"/> Monthly	Date:
Time of Day:	4:00 AM	
Time Zone:	EST	
Email Address:	None	

Deny Expiration Business Process

This process will automatically deny any pending registration or external learning type approval processes if the start date for the registration or external learning has already passed. Scheduling this procedure causes problems with our functional business rules, do not schedule this process.

Schedule This Process:	No	
Schedule Frequency:	<input type="checkbox"/> Hours	Every # of Hours:
	<input type="checkbox"/> Daily	
	<input type="checkbox"/> Weekly	Day:
	<input type="checkbox"/> Monthly	Date:
Time of Day:		
Time Zone:		
Email Address:		

External Verification Reminder

This process will send reminder notices to external approval roles. We do not use this feature, so we don't want to turn this on.



Schedule This Process:	No	
Schedule Frequency:	<input type="checkbox"/> Hours	Every # of Hours:
	<input type="checkbox"/> Daily	
	<input type="checkbox"/> Weekly	Day:
	<input type="checkbox"/> Monthly	Date:
Time of Day:		
Time Zone:		
Email Address:		

2.3 Notification Templates

The notifications that are generated by the Plateau LMS, whether through registrations or the Automatic Processes can be configured in these templates. The APM Training Expiration Notification will be used as an example for this section. In version 5.5, all notifications can be internationalized to support multiple languages, date and time formats.

Summary Tab

- **Description:** Editable field
- **Syntax ID:** Select a syntax from the Notification Syntax list. The syntax lists all of the database tags you are permitted to use in the body of the message. DO NOT edit this field unless the syntax information in the database has been customized to accommodate the change.



Messages Tab

Update the Message for the Notification Template

Message ID	Message Description	Message	Remove
BODY	Body	<div><LOOP><STUD_NAME/> ID: <STUD_ID/> - has a requirement for component <CPNT_TYPE_ID/>, <CPNT_ID/>, <REV_DATE/> for Qualification: <QUAL_ID/> due on <DUE_DATE/> </LOOP></div>	<div></div>
SUBJECT	Subject	<div>Plateau Learning Expiration Notification</div>	<div></div>

- **Body:** Contains the body of the message. Usually contains database tags that dynamically pull data into the message upon delivery.
- **Subject:** Contains the subject line of the email. Sometimes there will be multiple subject lines, different for each type of recipient (student, users, supervisors, etc.)
- You can add additional message IDs. These will appear as new paragraphs in the body of the message.
- You cannot use syntax (database) tags that are not included in the associated syntax.

Attachments Tab

Add an Attachment to the Notification Template

* = Indicates Required Fields

* Attachment ID:

Description:

* Attachment:

- Add attachments that will go out with each message. You can add multiple attachments.

Please refer to Appendix G for a complete list of SATERN Phase 2 notifications.



2.4 Application Configuration Files

The system-wide configurable files of the Plateau LMS include AICC, Plateau Question Editor, the Search framework, the LMS Administration (LMS Admin), the financial framework, the menu of the Learners Interface (PWS Menu), the Report framework and the Report System that stores system-related information about the reporting framework.

Each XML file is editable, and contains comment tags containing a description of each feature and the associated configuration options. This section will list each option, and give you a place to record your decisions about each setting.

It is strongly recommended that the workflows for the configuration files are restricted to a select few people. An understanding of XML and database /network administration is also recommended.

System Configuration

LMS ADMIN

This configuration contains system administrator information required to customize the ELMS application.

Plateau Learning Settings	
<input checked="" type="checkbox"/> False (Default)	Show Days Remaining Column in Learning Plan Set to true to show the “Days Remaining” column rather than the “Required By” column in the learning plan and curriculum details pages.

Home Page	
<input checked="" type="checkbox"/> True (Default)	Show Catalog
<input checked="" type="checkbox"/> True (Default)	Show Alert
<input checked="" type="checkbox"/> True (Default) Default is 5.	Show Learning Plan
<input checked="" type="checkbox"/> True (Default) Default is 5.	Show Curriculum
<input checked="" type="checkbox"/> True (Default)	Show Calendar

Privacy Act	
Enables learner and/or instructor IDs to be masked when output in notifications or reports.	
<input checked="" type="checkbox"/> True (Default)	Notifications
<input checked="" type="checkbox"/> True (Default)	▪ Learner ID
<input checked="" type="checkbox"/> True (Default)	▪ Instructor ID
<input checked="" type="checkbox"/> True (Default)	Reports
<input checked="" type="checkbox"/> True (Default)	▪ Learner ID
<input checked="" type="checkbox"/> True (Default)	▪ Instructor ID

Virtual Learning System (VLS)	
VLS is used to enable connection of the Plateau LMS to virtual learning servers such as WebEx, Centra and LiveMeeting.	



<input checked="" type="checkbox"/> False (Default)	Virtual Learning System Enabling (true) allows the user to see the VLS portion of segments on the UI, and allows connection of the Plateau LMS to a virtual learning server(s). This will be configured when VLS is integrated
--	---

Background Job Scheduling	
Email Batch Count: Use Default (10,000)	Email Batch Count Specifies the maximum number of email messages that will be sent at any one time.
Online Operation Max Records Count	500

General Settings	
Size: Use Default (10MB).	Max Upload Filesize Plateau recommends no more than 10 MB in order to maintain optimal performance. Uploading files larger than 10 MB could result in significant performance degradation for the uploading user.

Search

These are general global search settings. Individual searches can be modified in the System Admin > Configuration > Search Selectors section.

<input checked="" type="checkbox"/> True <input type="checkbox"/> False	Global Case Sensitivity For all searches in the application, enable="true" disregards each individual search selector setting, enable="false" uses the settings in the selector file (System Admin > Configuration > Search Selectors).
Use Default (10).	Search Result Rows Per Page
Defaults are 5, 10, 25 and All.	Available Options for Search Results per Page Learners have an option for how many records to display per page in catalog search results. You can configure their choices here.
<input checked="" type="checkbox"/> 1 (Default) Set to "1"	Catalog Search Results 0 – Show all prices 1 – Show Minimum Price 2 – Show Max Price When a student searches the catalog, they will be displayed results based on this setting.
<input checked="" type="checkbox"/> True (Default) <input checked="" type="checkbox"/> Item Title	Catalog Sort Order <ul style="list-style-type: none">Use Order By If true, select which column to order the results by when displayed to the student.

Learner Menu

For each menu group or menu item below, identify to which user(s) it will be displayed (in the xml, it is the "show=" attribute). The "Others" user refers to the Supervisor when displaying the record of a subordinate (View Others mode). The label values cannot be changed. The Menu Group refers to the label for a grouping of menu items.

<input checked="" type="checkbox"/> Learners <input checked="" type="checkbox"/> Supervisors <input checked="" type="checkbox"/> Others	Menu Group > Personal Default is all three.
<input checked="" type="checkbox"/> Learners <input checked="" type="checkbox"/> Supervisors <input checked="" type="checkbox"/> Others	Home Default is all three.
<input checked="" type="checkbox"/> Learners <input checked="" type="checkbox"/> Supervisors <input type="checkbox"/> Others	Profile Default is all three.
<input checked="" type="checkbox"/> Learners <input checked="" type="checkbox"/> Supervisors <input checked="" type="checkbox"/> Others	Regional Settings Default is all three.

<input checked="" type="checkbox"/> Learners <input checked="" type="checkbox"/> Supervisors	Shopping Cart Default is Learner and Supervisor.
<input type="checkbox"/> Learners <input type="checkbox"/> Supervisors	Order Status Default is Learner and Supervisor.
<input type="checkbox"/> Learners <input type="checkbox"/> Supervisors	Order Tickets Default is Learner and Supervisor.
<input checked="" type="checkbox"/> Learners <input checked="" type="checkbox"/> Supervisors <input checked="" type="checkbox"/> Others	Career Planner Default is all three.
<input checked="" type="checkbox"/> Learners <input checked="" type="checkbox"/> Supervisors <input checked="" type="checkbox"/> Others	Menu Item > Learning Default is all three.
<input checked="" type="checkbox"/> Learners <input checked="" type="checkbox"/> Supervisors <input checked="" type="checkbox"/> Others	Learning Plan Default is all three.
<input checked="" type="checkbox"/> Learners <input checked="" type="checkbox"/> Supervisors <input checked="" type="checkbox"/> Others	Current Registrations Default is all three.
<input checked="" type="checkbox"/> Learners <input checked="" type="checkbox"/> Supervisors <input checked="" type="checkbox"/> Other	Learning History Default is all three.
<input checked="" type="checkbox"/> Learners <input checked="" type="checkbox"/> Supervisors <input checked="" type="checkbox"/> Other	Curriculum Status Default is all three.
<input checked="" type="checkbox"/> Learners <input checked="" type="checkbox"/> Supervisors <input checked="" type="checkbox"/> Other	Record Learning Default is all three.
<input checked="" type="checkbox"/> Learners <input checked="" type="checkbox"/> Supervisors <input checked="" type="checkbox"/> Other	Menu Group > Career Default is all three.
<input checked="" type="checkbox"/> Learners <input checked="" type="checkbox"/> Supervisors <input checked="" type="checkbox"/> Other	Development Plan Default is all three.
<input checked="" type="checkbox"/> Learners <input checked="" type="checkbox"/> Supervisors <input checked="" type="checkbox"/> Other	Competency Assignments Default is all three.
<input checked="" type="checkbox"/> Learners <input checked="" type="checkbox"/> Supervisors <input checked="" type="checkbox"/> Other	Competency Assessments (View has not been turned on) Default is all three.
<input checked="" type="checkbox"/> Learners <input checked="" type="checkbox"/> Supervisors	Menu Group > Catalog Default is both.
<input checked="" type="checkbox"/> Learners <input checked="" type="checkbox"/> Supervisors	Browse Catalog Default is both.
<input checked="" type="checkbox"/> Learners <input checked="" type="checkbox"/> Supervisors	Simple Catalog Search Default is both.
<input checked="" type="checkbox"/> Learners <input checked="" type="checkbox"/> Supervisors	Advanced Catalog Search Default is both.

<input checked="" type="checkbox"/> Learners <input checked="" type="checkbox"/> Supervisors <input checked="" type="checkbox"/> Other	Menu Group > Reports Default is all three.
<input checked="" type="checkbox"/> Learners <input checked="" type="checkbox"/> Supervisors <input checked="" type="checkbox"/> Other	Menu Group > Employees Default is both.
<input checked="" type="checkbox"/> Learners <input checked="" type="checkbox"/> Supervisors <input checked="" type="checkbox"/> Others	Subordinates Default is both.
<input checked="" type="checkbox"/> Supervisors	Manage Learning Plan Default is selected.
<input type="checkbox"/> Supervisors	Manage Subordinate Registration Default is selected.
<input checked="" type="checkbox"/> Learners <input checked="" type="checkbox"/> Supervisors	Approvals Default is selected.

2.5 Branding Styles

The Plateau LMS allows for multiple branding styles. This option is intended to give you the flexibility to assign individual "look and feel" at the domain, organization, and/or system levels. This is implemented ONLY in the learner application. You will note that the branding style at the Domain level takes a higher precedence followed by the branding at the Organization level. If the student is logged into the system using a Site, then the system will use the branding style of that learner's site.

In the absence of a selected branding style at the domain and organizational levels (where a site is not being used), the system branding style is used.

Learner Introduction

This functionality offers separate introduction files that can be assigned per branding style. This html file will display on the welcome page of the learner application.

2.6 Sites (Default)

Sites provide access to learners outside the learning organization without comprising the security and the integrity of the learning management system.

2.7 Internationalization and Localization (Default)

The internationalization/localization settings are used to customize the Plateau LMS for a specific locale. Administrators can create, modify and/or delete labels, date and number patterns, active locales and active locale labels that are used to localize the application.

Active Locale ID:	ENGLISH(AMERICAN)		
Description:	Learner and Administrator Default Language and Patterns		
Used By:	Both		
Language Pack:	English (AMERICAN)		
Patterns:		Default:	
	Decimal Pattern:	<input checked="" type="checkbox"/>	1000.01
	Integer Pattern:	<input checked="" type="checkbox"/>	1,000,001
	Currency Pattern:	<input checked="" type="checkbox"/>	1,000.01
	Percentage Pattern:	<input checked="" type="checkbox"/>	1000.01
	Date Pattern:	<input checked="" type="checkbox"/>	DD/MM/YYYY MM/DD/YYYY
	Time Pattern:	<input checked="" type="checkbox"/>	hh:mm:ss: aaa (12-hour) hh:mi:ss (24-hour)

2.8 External Reports (Out of box)

These reports are generated using third party tools and then run in the Plateau LMS. They are part of the Plateau LMS legacy-reporting tool.

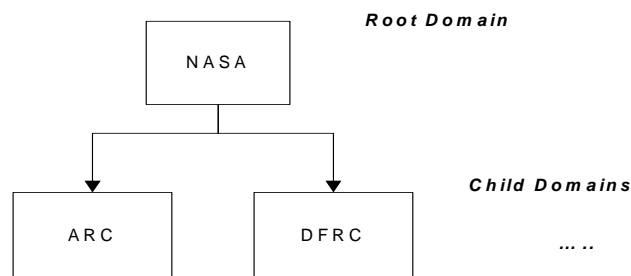
2.9 User Management (Default)

The user management section is used to create new users, assign roles to the users, edit individual user information and edit the internationalization preferences (locale patterns and time zones). Identification of the specific administrative user account will be determined during the Role Management Workshop.

3) Domains, Domain Types and Domain Restrictions

The Plateau LMS sets data ownership through an entity called “Domain.” Domains control major entities in the Plateau LMS. The use of domains is an important part of a security strategy. Domains are used to indicate what data can be seen and by whom. Domains act as an active filter for data allowing users with the proper domain permissions to view or manipulate only data that is associated with a domain.

Domains can be built into a hierarchical structure, with each domain having one or more “children.” However each domain can have only one parent. Hierarchical domains allow for greater flexibility by mapping the domain structure directly to an organization structure within a business. Domain hierarchies also allow system administrators to assign and access multiple domains by using the parent domain and controlling access through inheritance. This means that any child of a specified domain has the same access as the actual domain specified.



Domain Structures

The following table displays the pros and cons of different domain structures.

	Organizational Domain Structures	Functional Domain Structures	Geographic Domain Structures
Pro	<ul style="list-style-type: none">▪ Allows a distributed management environment	<ul style="list-style-type: none">▪ Broad groupings improves consistency▪ Provides consistency with functional group	<ul style="list-style-type: none">▪ Allows geographical control
Con	<ul style="list-style-type: none">▪ Does not promote consistency▪ More domains, more complexity	<ul style="list-style-type: none">▪ Does not allow distribution to local groups	<ul style="list-style-type: none">▪ Does not promote consistency

When a domain is created, it can be associated with one or more data types. Each domain may have one or more data types related to it. Domain types are the entities that contain a domain relationship. This allows the user to set different domains for different areas of the application. This in turn allows for greater flexibility in creating and using domains.

There are 34 different entities that relate to domains within the Plateau LMS. Each row of data within these entities can belong to a domain, but only one domain. Based on pre-workshop information, Plateau suggests that the following entities will or will not be used:

Domain Types/ Entities Will Be Used		Domain Types/ Entities Will NOT Be Used
Account Code	Exam	Competency
Approval Process	Facility	Competency Profile
Domain Restriction	Instructor	Assessment Process
Equipment	Item	Assessment Survey
Assignment Profile	Job Position	
Branding Style	Learner*	
Catalog	Learner Introduction	
Class	Location	
Community	Material	
Document	Objective	
User Profile	Organization	
Content Object	Question	
Content Package	Role	
Curriculum	Schedule Offering	
Custom Report	Task	

* Learner information will be stored exclusively in the client domains.

Discipline Domain Structure

Please refer to appendix E, SATERN LMS Domain Structure for a complete reference to the Discipline Domain Structure.

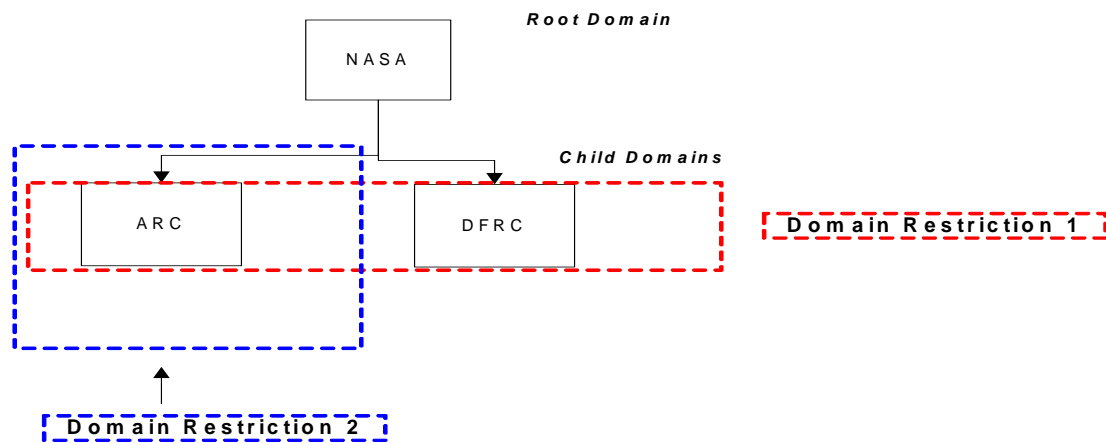
Client Domain Structure

Please refer to Appendix E for the entire Satern LMS Domain Structure.

3.1 Domain Restrictions

Each domain can be included in a “Domain Restriction.” Each domain in a restriction allows access to the specific domain and all of its child domains or a specified group of domains unrelated by a hierarchy.

To add another layer of complexity, yet flexibility, a Domain Restriction Set can be used in conjunction with workflows to grant or deny what a user can do to the data they can see.



Client Domain Restrictions

Please refer to Appendix E, SATERN LMS Domain Structure, for a complete list of domain restrictions.

4) Organizations

Organization entities in the Plateau LMS provide the basis for the five distinct business capabilities: method of mirroring the business structure in the Plateau LMS, criteria for searching and reporting on learners, deploying catalogs to learners, reserving slots in schedule offerings and/or supporting commerce through account codes. Organizations are hierarchical and are associated with domains. A sample of the organization structure is included below: **Populated through the FPPS feed. An example is displayed below.

Organization ID (30 char)	Org Type ID	Description (100 char)
NH-AA000	Org Unit	OFFICE OF THE ADMINISTRATOR

Organization Group (No Organization Groups)

Organization Group provides a method to group organizations that are not necessarily hierarchically related. (This is a global table)

Organization Group ID (30 char)	Description (100 char)

Organization Type

Organization Types are categories for organizations. (This is a global table.)

Organization Type ID (30 char)	Description (40 char)
VENDOR	Vendor
Org Unit	Org Unit

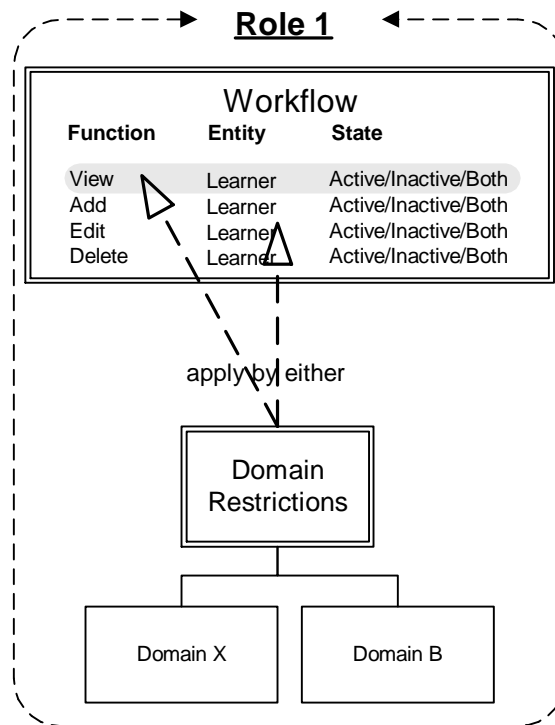
Organization Custom Field (No Organization Custom Fields)

Custom columns allow administrators to use the Plateau LMS to collect and track information that may be unique to an organization and are not captured elsewhere by the system. .) Please see Appendix B, LMS Interface Specifications for details on organization table updates. Vendor organizations are maintained via a 1735 process. If the listed vendor from the 1735 does not exist, NSSC personnel will create an entry for that vendor in the organization table.

Label	Col #	Referenced	Ref. ID Value or Field Description

5) Role Management

Workflows are what an administrative user can *do* within the Plateau LMS. Workflows can range from viewing reports, to recording learning events for learners. A workflow is comprised of a function tied to an entity. One or more workflows are set up as a “Role.” A role is simply a collection of workflows. The role can then be assigned to an administrative user. An administrative user can be assigned one or more roles, allowing the re-usability of roles. An administrative user has access to the combination of workflows associated to the roles assigned to the user.



5.1 Administrative Users

By breaking down the Plateau LMS access to the combination of the workflows and domains assigned to an administrative user, extreme granularity can be built within the existing security model, allowing clients to be as exact as desired in controlling access to features and data with Plateau.

The four functions we discussed (domains, domain restrictions, workflows and roles) build to create a unique security role in the Plateau LMS:

- Domains are created to limit the view of data for administrators.
- Domain Restrictions are created to further limit the view of data.
- Transactions are grouped to develop administrative security roles.
- Domain Restrictions are applied to roles to join security rights with domains and domain restrictions.
- Administrative users are created and assigned roles.

A Role is created based upon NASA business process and business needs, and is then assigned to an administrative user. An administrator user can be assigned one or more roles, allowing for the re-usability or grouping of roles. An administrator user has access to the combination of workflows associated with a role that is assigned to the user.

Following is a high-level overview of the generic Roles currently available:

- **Plateau Administrator (Super User for NASA)**
 - Most robust Administrator Role in the system. The Plateau Administrator will have full access to all Workflows in all Domains.
- **Level 1: Regional Administrator**
 - The Level 1 Training Lead has access to every workflow within the LMS, with the exception of those that affect global settings or global reference tables.
 - A Level 1 Training Lead will be assigned to each Center Domain (the generic Training Lead Role will be copied for the Domain-specific Role, and modified as needed).
 - Rights of the Level 1 Training Lead include:
 - Manage Items, Content Objects, and Qualifications
 - Manage Scheduling and Resources
 - Manage Students
 - Manage Catalogs and Commerce functions
 - Manage most System Administration functions and Tools
 - Run Reports
- **Level 2: IT Administrator**
 - The Level 2 Role is for troubleshooting.
 - Rights of the Level 2 Role include:
 - Most System Administration capabilities
 - Most Student Management capabilities
 - Change email address
 - Give Learner his password and User ID.
 - Add and edit user profile/new accounts and ability to edit/copy learners and custom columns.
 - Able to view/edit custom columns
 - View and search everything.
- **Level 3: Training Office Administrators**
 - The Level 3 Role is primarily responsible for managing and tracking student training needs, though they also have access to create items and schedule instances.
 - Rights of the Level 3 Role include:
 - Manage Items, Content Objects, and Qualifications
 - Manage Scheduling and Resources
 - Manage Students, schedule courses, edit assessment instances, reserve equipment
 - Manage Catalogs and Commerce functions
 - Run Reports

- **Level 4: Organization Training Coordinator**
 - The Level 4 Role is primarily responsible for creating courseware, items, and if needed, scheduled instances.
 - Rights of the Level 4 Role include:
 - Manage Items, Content Objects, and Qualifications
 - Manage Scheduling and Resources
 - Run Reports
- **Level 5: Manage Facilities**
 - The Level 5 Role is primarily responsible for managing resources.
 - Rights of the Level 5 Role include:
 - Manage Resources (instructors, facilities, etc.)
 - Run Limited Reports
- **Level 6: Manage Commerce**
 - The Level 6 Role is primarily responsible for managing financial aspects of training, such as training costs.
 - Rights of the Level 6 Role include:
 - Manage Commerce
 - Run Limited Reports
- **Level 7: First Tier Help Desk**
 - The Level 7 Role is primarily for end-user troubleshooting.
 - Rights of the Level 7 Role include:
 - Limited System Administration capabilities
 - Limited Student Management capabilities
 - Reset passwords and notify you of your User ID.
 - Change email address.
 - Search, view and edit Learner
 - Search and View pretty much anything about a Learner and custom columns
- **Level 8: Discipline Domain Administrator**
 - The Level 8 Role is primarily for managing learner histories and running reports for their domain.
 - Rights of the Level 8 Role include:
 - Search and view learners
 - Search and view items and completion status
 - Run item status reports
 - Ability to add, view, copy and delete items, catalogs and curricula.
 - Search and schedule scheduled offerings and learner registration
 - No access to custom columns (specific to learner custom columns)
 - View, edit and assign item to learner
- **Level 9: Discipline Domain Reporter (RGI-type Person)**
 - The Level 9 Role is primarily for viewing learner histories and running reports for their domain.
 - Rights of the Level 9 Role include:
 - Search but not view learners

- Search and view items and completion status
 - Run item status reports
- **Level 10: View Only (Reports)**
 - The Level 10 Role is primarily “view only,” although this Role may also run most reports.
 - Rights of the Level 10 Role include:
 - Run Reports
 - System has been adjusted so that this level cannot view custom columns such as race, etc.
- **Level 11: Competency Management**
 - Rights of the Level 11 Role include:
 - Competencies – adding, deleting, editing, viewing, searching, assessment
 - Cumulative gap analysis reporting
 - Search assessments
 - Search learner profiles and view their competencies

Note: A user may have different levels for different domains. For instance, a user can have a Level 7 for Marshall, Level 5 for Goddard, Level 2 for the Information Technology Security Discipline Domain. These roles can be modified, deleted, or added to at any time. There is no limit to the number of users assigned to each role. The Plateau Administrator (Super User) role should not be deleted, however. **For a complete list of roles, please see Appendix C.**

1.1.1. Naming Convention for User Roles

A common naming convention should be utilized across NASA with regard to User Roles. This naming convention should be utilized for all business objects that require an ID. For user roles, however, the majority of roles should be generic administrative roles. For the generic roles, the first part of the generic or “template” name should be “NASA.” The second part of the user role ID, should indicate the user role title. The third part of the user role ID should be the level. The parts of a User Role ID are separated by a dash.

EXAMPLE 1: A Plateau Administrator role is created for an administrative user with responsibility for the entire NASA organization. The naming convention would result in the following:

User Role ID: NASA-PlateauAdmin

User Role Description: NASA Plateau Administrator

EXAMPLE 2: An Administrator role is created for an administrative user with responsibility for a specific NASA center. The naming convention would result in the following:

User Role ID: NASA-TM-2

User Role Description: NASA Training Manager Level 2

1.1.2. Workflows

Workflows are what an administrative user can do within the LMS. Workflows can range from viewing objective data, to recording learning events for students. A workflow is comprised of a function tied to an entity. These functions can affect both active and/or inactive state records.

- An entity in the system includes items, students, and scheduled Instances.
- Functions are ‘actions’ such as view, edit, and delete.
- The state of the record can be either active, inactive, or both.

The combination of a function applied to an entity is a workflow. For example, a workflow might be ‘View Items.’ Others include ‘Edit Students’ and ‘Delete Schedule Instances.’ One can create all number and combination of workflows to match a user’s required job tasks in the system.

There are over 500 workflows in the Plateau 5.5 LMS. Each workflow may be assigned a domain restriction. This assignment limits the workflow to access only the domains listed in the restriction. The domain restriction can be applied at two points within the workflow: the function or the entity.

For initial rollout, NASA has decided upon some generic Administrative use Roles, with Workflows assigned based upon current NASA business processes. Administrators at the NASA Domain level may choose to copy these generic roles, and use them as a model for Domain-specific role that meets NASA’s particular business needs. **The Roles created for Phase I, Phase II and Phase III, and their associated Workflows are described in Appendix C.**

The Learner Information section manages learner records. The Learner Information section allows you to add new learners and assign, edit, and delete organizations, job positions, learning plans, curricula, competencies, and financial information for those learners. You can also view learner enrollment, item requests, and learning history records.

An individual must be defined as a learner in the Plateau LMS in order to access learning items.

5.2 Learner Attributes

The following table summarizes the fields on a learner record. After the table, there is a detailed description of each field.

See Appendix A (Migration Templates) for complete details on Learner Attributes.

Learner Status (Active, Inactive, Delete)

Learner records in the Plateau LMS can be set to active or inactive status. This status determines whether or not the record appears in searches and can be included as a part of role management and securities measures. Beyond setting a records status, the business rules and process for deleting a learner’s record should be reviewed.

Learner ID

This is a 30 CHAR field that is the primary key for the learner record. The learner ID is used for the learner login and administrator searches and management.

Job Position

The Job Position indicates a learner's function with the business. This field will not be used immediately. Job position information will be stored in a Learner custom column until this field is ready for use.

Job Location

The physical Job Location is where a learner works. It is a combination of center and organization codes. **Values for this field will be captured as we load data feeds – we do not have to capture all values at this point.**

Employee Status

The Employment Status indicates the current relationship of a learner to the business.

Employee Status ID (30 char)	Description (40 char)
B	BAYLOR PLAN
F	FULL-TIME
G	FULL-TIME SEASONAL
I	INTERMITTENT
J	INTERMITTENT SEASONAL
P	PART-TIME
PAYLOAD UTILIZATION	UNSPECIFIED
Q	PART-TIME SEASONAL
S	PART-TIME JOB SHARER
T	PART-TIME SEAS JOB SHAR

Note: For contractors, this field will be left blank. NASA would like a custom field (called “Duty Status”) to indicate “active,” “inactive,” “leave without pay,” or “military furlough.”

Note: FPPS codes of A (active) and M (military furlough) result in a record being set to active. Any other code will result in the record being set to an inactive state.

Employee Type

Employee Types are categories used to group learners.

Employment Type ID (30 char)	Description (40 char)
1	Civil Service Employee

Employment Type ID (30 char)	Description (40 char)
2	Contractor
3	Civil Service Employee (other than NASA)
4	Contractor (other than NASA)
5	Other
F	UNSPECIFIED

Email Address

Email addresses in the Plateau LMS are used to support schedule offering notifications

Supervisor

Supervisor in the Plateau LMS is the report to relationship of the learner. While only one supervisor can be assigned to a learner record, the hierarchy of this relationship is maintained in the Plateau LMS.

See Appendix B - LMS Interface Specifications (WebTADS) for more details.

5.3 Business Processes

NASA will develop the following business processes for learner management in the Plateau LMS.

- Add, Edit and Delete a Learner Record
- Reset Learner Password/PIN
- Copy Learner
- Determine Access to Online Items
- Establish Default Learner Preferences

5.4 Class (of Learners)

Class entity allows an administrator to collect a set of learners and move them through a specified set of learning activities at the same time. It allows the group of learners to be reported on as a group unifying the learning activities and reporting. (Classes are associated with domains.)

Class Status No Class Statuses

Class Status indicates the status of a class. An example of class status is included below:

Class Status ID (30 char)	Description (40 char)

Class Status ID (30 char)	Description (40 char)

5.5 Custom Columns

Custom columns allow administrators to use the Plateau LMS to collect and track information on learners or classes that may be unique to an organization and are not captured elsewhere by the system. For instance, if the name of each learner's emergency contact person needed to be recorded in the system, an administrator could create a custom column called "Emerg Contact" for learners.

Administrators can specify that only certain values will be allowed for a custom column by setting the custom column to be referenced. You can then establish which reference values will be allowed for the custom column.

Please refer to Appendix J for a complete list and description of the custom columns contained in SATERN.

5.6 Naming Conventions

Naming conventions for entities relating to learner management are:

Entity	Naming Convention
Learner ID (30 char)	first init, middle init and first 16 chars of last name
Class ID (30 char)	

6) Learning Management

6.1 Items

Items are the fundamental building blocks within the Plateau LMS and represent the core entity that training completion is recorded against. Items can be grouped into curricula allowing administrators to group any number of item learning requirements together into one unit and track the completion of that required learning as a unit. Curricula can also be nested through the use of sub-curricula, set to force incomplete to track compliance on the fly and scheduled to assist administrators in the scheduling process.

Item Attributes

The following item attributes should be reviewed when creating a learner record:

- Item Type (system required)
- Item ID (system required)
- Revision Date and Time (system required)
- Title (displays to the learner)
- Classification (supports other functionality)
- Domain ID (system required)
- Requirement Type ID (supports curricula)
- Create Date (date that item was created in the Plateau LMS)
- Description/Goals (displays to learner)
- Credit Hours (supports compliance standards)
- Contact Email (supports APMs)
- Minimum / Maximum Registrations (when planning for schedule offerings and supports some APMs)
- Any Substitute Relationships (provides flexibility in learning options and displays to learners)
- Prerequisites (recommends learning requirements and order and displays to learner)
- Segment (at least 1 when planning for schedule offerings)
- Catalog (how learning will display to learner)

Item Type

The Item Types are categories of training activities. Example item types are:

ITEM TYPE ID	GRADING OPTION	DESCRIPTION
ASSESS	No	Assessment
BOOK	No	Book
BRIEFING	No	Briefing

ITEM TYPE ID	GRADING OPTION	DESCRIPTION
CERT	No	Certification
CONFERENCE	No	Conference
COURSE	No	Course
COURSE_EVAL	No	Course Evaluation
DEVELOPMENT_PROGR AM_A	No	Development Program - Agency
DEVELOPMENT_PROGR AM_C	No	Development Program - Center
DISCUSSION	No	Discussion
DOCUMENT	No	Document
EXAM	No	Examination
FACILITATOR	No	Facilitator
FELLOWSHIP	No	Fellowship
LC	No	Learning Center
MEETING	No	Meeting
OJT	No	On-the-Job Training
PHYSICAL	No	Physical/Medical Examination
READING	No	Required Reading
SHADOW	No	Shadow Assignment
SEMINAR	No	Seminar
SOP	No	Standard Operating Procedure
SURVEY	No	Survey
WORKBOOK	No	Workbook
WORKSHOP	No	Workshop
OTHER	No	Other Type of Item

Item Revision Number, Date and Time

The item revision date and time is the date and time of origination or last revision of an item. If no revision date and time is specified, then the latest revision is assumed.

Item Source

The item source identifies the origin of an Item. Example item sources are:

Item Source ID (30 char)	Description (40 char)
INTERNAL	Internal
EXTERNAL	External

Classification

There are three classifications in the system: Instructor-led, Online item, and Other (i.e.: physical goods). An example of business rules for each classification is included below:

Classification	Business Rules
INSTRUCTOR-LED	All migrated items will be set to this classification.
ONLINE	All vendor content will be set to this classification.

Classification	Business Rules
OTHER	All physical good items, such as CD ROMS, will be set to this classification.

Delivery Methods

The instructional method used to deliver learning.

Delivery Method ID (30 char)	Description (40 char)
AUDIO	Audio
BLENDED_LEARN	Blended Learning
CORRESPONDENCE	Correspondence
CBT	Computer Based Training
FACILITATOR	Facilitator
ILT	Instructor Led Training
LECTURE	Lecture
LECTURE_DISCUSSION	Lecture/Discussion
LECTURE_PRESENTATION	Lecture/Presentation
MULTIMEDIA	Multimedia
OJT	On-the-Job Training
ONLINE	Online Course/Content
OTHER	Other Delivery Method
PRESENT	Presentation
SATELLITE_BROADCAST	Satellite Broadcast
SELF_STUDY	Self Study
SHADOW	Shadowing
SIMULATION	Simulation
TEST_STAND_DIRECTED	Test Stand Directed
VIDEO	Video
VIDEO_BOOK	Video/Book
VIDEO_TELECON	Video Teleconferencing
WBT	Web Based Training
WEBEX	Webex

Approval Process

Approval Process provide the option of creating multi-layered Approval Process with individual steps, and assigning that Approval Process to items and/or scheduled instances based on business rules of NASA's learning management system. Internal training request approvals are configurable per item or scheduled offering. Online Items have an optional approval process.

NASA can also create and assign Approval Roles to validate each process step of the training approval request. Each Approval Role one create MUST have at least a Control Domain. More than one Approval Role may be assigned to a single step in the approval process. Once a Learner submits a request for training, self enrolls in an item or adds an item or scheduled instance to his/her shopping cart, the approval process is initiated and email notifications are immediately sent out to concerned approvers) as well as the related-learners.

A single approval process can be selected for use in approving all external training requests. One may create up to six Approval Process steps for internal and external training requests by specifying a set of steps to take in order to have the training request approved. The approval process and approval roles decided on are:

Process ID (30 Char)	Approval Step Number	Step Name (100 Char)	Approval Role / Learner ID
1STEP SUPER	1	Initial Approver	Supervisor Level 1
1STEP_IEM	1	IEM	Integrated Enterprise Management Rep
1STEP_LC	1	Initial Approval	Learning Center
2STEP SUPER/ARC NSTC POC	1	INITIAL APPROVAL	Supervisor Level 1
	2	NSTC POC	ARC NSTC POC
2STEP SUPER/DFRC NSTC POC	1	INITIAL APPROVAL	Supervisor Level 1
	2	NSTC POC	DFRC NSTC POC
2STEP SUPER/GRC NSTC POC	1	INITIAL APPROVAL	Supervisor Level 1
	2	NSTC POC	GRC NSTC POC
2STEP SUPER/GSFC NSTC POC	1	INITIAL APPROVAL	Supervisor Level 1
	2	NSTC POC	GSFC NSTC POC
2STEP SUPER/HQ NSTC POC	1	INITIAL APPROVAL	Supervisor Level 1
	2	NSTC POC	HQ NSTC POC
2STEP SUPER/JSC NSTC POC	1	INITIAL APPROVAL	Supervisor Level 1
	2	NSTC POC	JSC NSTC POC
2STEP SUPER/KSC NSTC POC	1	INITIAL APPROVAL	Supervisor Level 1
	2	NSTC POC	KSC NSTC POC
2STEP SUPER/LARC NSTC POC	1	INITIAL APPROVAL	Supervisor Level 1
	2	NSTC POC	LARC NSTC POC
2STEP SUPER/MSFC NSTC POC	1	INITIAL APPROVAL	Supervisor Level 1
	2	NSTC POC	MSFC NSTC POC
2STEP SUPER/NSSC NSTC POC	1	INITIAL APPROVAL	Supervisor Level 1
	2	NSTC POC	NSSC NSTC POC
2STEP SUPER/SSC NSTC POC	1	INITIAL APPROVAL	Supervisor Level 1
	2	NSTC POC	SSC NSTC POC
2STEP SUPER/TC	1	Initial Approval	Supervisor Level 1
	2	TC	Training Coordinator
2STEP SUPER/TO	1	Initial Approval	Supervisor Level 1
	2	Training Office	Training Office
3 Step Super/TC/IEM	1	Super	Supervisor Level 1
	2	TC	Training Coordinator
	3	IEM	Integrated Enterprise Management Rep
3STEP SUPER/ARC NSTC POC	1	INITIAL APPROVAL	Supervisor Level 1
	2	NSTC POC	ARC NSTC POC
	2	TC	Training Coordinator
3STEP SUPER/DFRC NSTC POC	1	INITIAL APPROVAL	Supervisor Level 1
	2	NSTC POC	DFRC NSTC POC

Process ID (30 Char)	Approval Step Number	Step Name (100 Char)	Approval Role / Learner ID
Process ID (30 Char)	Approval Step Number	Step Name (100 Char)	Approval Role / Learner ID
	2	TC	Training Coordinator
3STEP SUPER/GRC NSTC POC	1	INITIAL APPROVAL	Supervisor Level 1
	2	NSTC POC	GRC NSTC POC
	2	TC	Training Coordinator
3STEP SUPER/GSFC NSTC POC	1	INITIAL APPROVAL	Supervisor Level 1
	2	NSTC POC	GSFC NSTC POC
	2	TC	Training Coordinator
3STEP SUPER/HQ NSTC POC	1	INITIAL APPROVAL	Supervisor Level 1
	2	NSTC POC	HQ NSTC POC
	2	TC	Training Coordinator
3STEP SUPER/JSC NSTC POC	1	INITIAL APPROVAL	Supervisor Level 1
	2	TC	Training Coordinator
	2	NSTC POC	JSC NSTC POC
3STEP SUPER/KSC NSTC POC	1	INITIAL APPROVAL	Supervisor Level 1
	2	TC	Training Coordinator
	2	NSTC POC	KSC NSTC POC
3STEP SUPER/LARC NSTC POC	1	INITIAL APPROVAL	Supervisor Level 1
	2	TC	Training Coordinator
	2	NSTC POC	LARC NSTC POC
3STEP SUPER/MSFC NSTC POC	1	INITIAL APPROVAL	Supervisor Level 1
	2	TC	Training Coordinator
	2	NSTC POC	MSFC NSTC POC
3STEP SUPER/NSSC NSTC POC	1	INITIAL APPROVAL	Supervisor Level 1
	2	TC	Training Coordinator
	2	NSTC POC	NSSC NSTC POC
3STEP SUPER/SSC NSTC POC	1	INITIAL APPROVAL	Supervisor Level 1
	2	TC	Training Coordinator
	2	NSTC POC	SSC NSTC POC
3STEP SUPER/TC/TO	1	Initial Approver	Supervisor Level 1
	2	Training Coordinator	Training Coordinator
	3	Training Office	Training Office
4 Step Sup/TC/HRDR/TO	1	Supervisor	Supervisor Level 1
	2	Training Coordinator	Training Coordinator
	3	Human Resouces Development Rep	Human Resources Development Rep
	4	Training Office	Training Office
4STEP APPEL SUPER/TC/POC/RGI	1	Initial Approver	Supervisor Level 1
	2	Training Coordinator	Training Coordinator
	3	APPEL POC	APPEL POC

Process ID (30 Char)	Approval Step Number	Step Name (100 Char)	Approval Role / Learner ID
Process ID (30 Char)	Approval Step Number	Step Name (100 Char)	Approval Role / Learner ID
	4	RGI	APPEL Discipline RGI Coordinator
4STEP LMD SUPER/TC/POC/RGI	1	Initial Approver	Supervisor Level 1
	2	Training Coordinator	Training Coordinator
	3	LMD POC	LMD POC
	4	RGI	LMD Discipline RGI Coordinator
4STEP OA SUPER/TC/POC/RGI	1	Initial Approver	Supervisor Level 1
	2	Training Coordinator	Training Coordinator
	3	Other Agency POC	Other Agency POC
	4	RGI	OTHAGENCY Discipline RGI Coordinator
4STEP SUPER/TC/TO/NSSC	1	Initial Approval	Supervisor Level 1
	2	Training Coordinator	Training Coordinator
	3	Training Office	Training Office
	4	NSSC	NSSC Procurement (IG)
EXTERNAL	1	Initial Approval	Supervisor Level 1
EXTERNAL	1	Initial Approval	Supervisor Level 1
	2	Training Coordinator	Training Coordinator
EXTERNAL	1	Initial Approval	Supervisor Level 1
	2	NSSC	NSSC Procurement (IG)
EXTERNAL	1	Initial Approval	Supervisor Level 1
	2	Training Coordinator	Training Coordinator
	3	Training Office	Training Office
EXTERNAL	1	Initial Approval	Supervisor Level 1
	2	Training Coordinator	Training Coordinator
	3	Training Office	Training Office
	4	NSSC	NSSC Procurement (IG)
EXTERNAL	1	Initial Approval	Supervisor Level 1
	2	Training Coordinator	Training Coordinator
	3	Training Office	Training Office
	4	NSSC-HR1	NSSC Human Resources (SP)
EXTERNAL	5	Initial Approval	Supervisor Level 1
	5	Training Coordinator	Training Coordinator
	5	Training Office	Training Office
	5	NSSC	NSSC HR Training (IG)
	5	NSSC-Procurement	NSSC Procurement (IG)
EXTERNAL	5	Initial Approval	Supervisor Level 1
	5	Training Coordinator	Training Coordinator
	5	Training Office	Training Office

Process ID (30 Char)	Approval Step Number	Step Name (100 Char)	Approval Role / Learner ID
	5	NSSC	NSSC Procurement (SP)
	5	NSSC Procurement	NSSC Procurement (SP)
EXTERNAL	6	Initial Approval	Supervisor Level 1
	6	Training Coordinator	Training Coordinator
	6	Training Office	Training Office
	6	NSSC	NSSC HR Training (IG)
	6	NSSC-Procurement	NSSC Procurement (IG)
	6	NSSC HR Training (IG)	NSSC HR Training (IG)
EXTERNAL	6	Initial Approval	Supervisor Level 1
	6	Training Coordinator	Training Coordinator
	6	Training Office	Training Office
	6	NSSC	NSSC HR Training (SP)
	6	NSSC-Procurement	NSSC Procurement (SP)
	6	NSSC HR Training (SP)	NSSC HR Training (SP)
EXTERNAL	6	Initial Approval	Supervisor Level 1
	6	Training Coordinator	Training Coordinator
	6	Training Office	Training Office
	6	NSSC	NSSC HR Training (SP)
	6	NSSC-Procurement	NSSC Procurement (SP)
	6	NSSC-HR2	NSSC Human Resources (SP)
EXTERNAL	6	Initial Approval	Supervisor Level 1
	6	Training Coordinator	Training Coordinator
	6	Training Office	Training Office
	6	NSSC	NSSC HR Training (IG)
	6	NSSC-Procurement	NSSC Procurement (IG)
	6	NSSC-HR2	NSSC Human Resources (IG)
NSC	1	Initial Approval	Supervisor Level 1
NSC	1	Initial Approval	Supervisor Level 1
	2	NSC	NSC
NSC	1	Initial Approval	Supervisor Level 1
	2	TC	Training Coordinator
NSC	1	Initial Approval	Supervisor Level 1
	2	TC	NSC
Other Center Training	1	Supervisor	Supervisor Level 1
	2	Training Coordinator	Training Coordinator
	3	Training Office	Training Office
	4	Hosting Center Training Office	Host Center Training Office
PM-4	1	Initial Approval	Supervisor Level 1
	2	Program Manager 1	Program Manager 3

Process ID (30 Char)	Approval Step Number	Step Name (100 Char)	Approval Role / Learner ID
	3	Training Office Specialist 1	Training Office Specialist 3
PM-4	1	Initial Approval	Supervisor Level 1
	2	Program Manager 1	Program Manager 4
	3	Training Office Specialist 1	Program Manager 4
SSC LEARNING CENTER	1	SSC LEARNING CENTER	Learning Center
Super/NSTC Range/Safety POC	1	Supervisor Level 1	Supervisor Level 1
Super/NSTC Range/Safety POC	2	NSTC Range Safety POC	NSTC Range Safety POC
Supervisor/PM-1/TO-1	1	Initial Approval	Supervisor Level 1
	2	Program Manager 1	Program Manager 1
	3	Training Office Specialist 1	Training Office Specialist 1
Supervisor/PM-1/TO-3	1	Initial Approval	Supervisor Level 1
	2	Program Manager 1	Program Manager 1
	3	Training Office Specialist 1	Training Office Specialist 1
Supervisor/PM-1/TO-3	1	Initial Approval	Supervisor Level 1
	2	Program Manager 1	Program Manager 3
	3	Training Office Specialist 1	Training Office Specialist 3
Supervisor/PM-10/TO-10	1	Initial Approval	Supervisor Level 1
	2	Program Manager 1	Program Manager 10
	3	Training Office Specialist 1	Training Office Specialist 10
Supervisor/PM-2/TO-2	1	Initial Approval	Supervisor Level 1
	2	Program Manager 1	Program Manager 1
	3	Training Office Specialist 1	Training Office Specialist 1
Supervisor/PM-2/TO-2	1	Initial Approval	Supervisor Level 1
	2	Program Manager 2	Program Manager 2
	3	Training Office Specialist 1	Training Office Specialist 1
Supervisor/PM-2/TO-2	1	Initial Approval	Supervisor Level 1
	2	Program Manager 2	Program Manager 2
	3	Training Office Specialist 2	Training Office Specialist 2
Supervisor/PM-4/TO-4	1	Initial Approval	Supervisor Level 1
	2	Program Manager 1	Program Manager 4
	3	Training Office Specialist 1	Training Office Specialist 4
Supervisor/PM-5/TO-5	1	Initial Approval	Supervisor Level 1
	2	Program Manager 1	Program Manager 5

Process ID (30 Char)	Approval Step Number	Step Name (100 Char)	Approval Role / Learner ID
	3	Training Office Specialist 1	Training Office Specialist 5
Supervisor/PM-6/TO-6	1	Initial Approval	Supervisor Level 1
	2	Program Manager 1	Program Manager 6
	3	Training Office Specialist 1	Training Office Specialist 6
Supervisor/PM-7/TO-7	1	Initial Approval	Supervisor Level 1
	2	Program Manager 1	Program Manager 7
	3	Training Office Specialist 1	Training Office Specialist 7
Supervisor/PM-8/TO-8	1	Initial Approval	Supervisor Level 1
	2	Program Manager 1	Program Manager 8
	3	Training Office Specialist 1	Training Office Specialist 8
Supervisor/PM-9/TO-9	1	Initial Approval	Supervisor Level 1
	2	Program Manager 1	Program Manager 9
	3	Training Office Specialist 1	Training Office Specialist 9
Supervisor/TC/TO-1	1	Initial Supervisor	Supervisor Level 1
	2	Training Coordinator	Training Coordinator
	3	Training Office Specialist 1	Training Office Specialist 1
Supervisor/TC/TO-10	1	Initial Supervisor	Supervisor Level 1
	2	Training Coordinator	Training Coordinator
	3	Training Office Specialist 10	Training Office Specialist 10
Supervisor/TC/TO-11	1	Initial Supervisor	Supervisor Level 1
	2	Training Coordinator	Training Coordinator
	3	Training Office Specialist 11	Training Office Specialist 11
Supervisor/TC/TO-12	1	Initial Supervisor	Supervisor Level 1
	2	Training Coordinator	Training Coordinator
	3	Training Office Specialist 12	Training Office Specialist 12
Supervisor/TC/TO-13	1	Initial Supervisor	Supervisor Level 1
	2	Training Coordinator	Training Coordinator
	3	Training Office Specialist 13	Training Office Specialist 13
Supervisor/TC/TO-14	1	Initial Supervisor	Supervisor Level 1
	2	Training Coordinator	Training Coordinator
	3	Training Office Specialist 14	Training Office Specialist 14
Supervisor/TC/TO-15	1	Initial Supervisor	Supervisor Level 1
	2	Training Coordinator	Training Coordinator

Process ID (30 Char)	Approval Step Number	Step Name (100 Char)	Approval Role / Learner ID
	3	Training Office Specialist 15	Training Office Specialist 15
Supervisor/TC/TO-16	1	Initial Supervisor	Supervisor Level 1
	2	Training Coordinator	Training Coordinator
	3	Training Office Specialist 16	Training Office Specialist 16
Supervisor/TC/TO-17	1	Initial Supervisor	Supervisor Level 1
	2	Training Coordinator	Training Coordinator
	3	Training Office Specialist 17	Training Office Specialist 17
Supervisor/TC/TO-18	1	Initial Supervisor	Supervisor Level 1
	2	Training Coordinator	Training Coordinator
	3	Training Office Specialist 18	Training Office Specialist 18
Supervisor/TC/TO-19	1	Initial Supervisor	Supervisor Level 1
Supervisor/TC/TO-19	2	Training Coordinator	Training Coordinator
Supervisor/TC/TO-19	3	Training Office Specialist 19	Training Office Specialist 19
Supervisor/TC/TO-2	1	Initial Supervisor	Supervisor Level 1
	2	Training Coordinator	Training Coordinator
	3	Training Office Specialist 2	Training Office Specialist 2
Supervisor/TC/TO-20	1	Initial Supervisor	Supervisor Level 1
	2	Training Coordinator	Training Coordinator
	3	Training Office Specialist 20	Training Office Specialist 20
Supervisor/TC/TO-3	1	Initial Supervisor	Supervisor Level 1
	2	Training Coordinator	Training Coordinator
	3	Training Office Specialist 3	Training Office Specialist 3
Supervisor/TC/TO-4	1	Initial Supervisor	Supervisor Level 1
	2	Training Coordinator	Training Coordinator
	3	Training Office Specialist 4	Training Office Specialist 4
Supervisor/TC/TO-5	1	Initial Supervisor	Supervisor Level 1
	2	Training Coordinator	Training Coordinator
	3	Training Office Specialist 5	Training Office Specialist 5
Supervisor/TC/TO-6	1	Initial Supervisor	Supervisor Level 1
	2	Training Coordinator	Training Coordinator
	3	Training Office Specialist 6	Training Office Specialist 6
Supervisor/TC/TO-7	1	Initial Supervisor	Supervisor Level 1
	2	Training Coordinator	Training Coordinator

Process ID (30 Char)	Approval Step Number	Step Name (100 Char)	Approval Role / Learner ID
	3	Training Office Specialist 7	Training Office Specialist 7
Supervisor/TC/TO-8	1	Initial Supervisor	Supervisor Level 1
	2	Training Coordinator	Training Coordinator
	3	Training Office Specialist 8	Training Office Specialist 8
Supervisor/TC/TO-9	1	Initial Supervisor	Supervisor Level 1
	2	Training Coordinator	Training Coordinator
	3	Training Office Specialist 9	Training Office Specialist 9
Supervisor/TO1	1	Initial Supervisor	Supervisor Level 1
	2	Training Office Specialist 1	Training Office Specialist 1
Supervisor/TO10	1	Initial Supervisor	Supervisor Level 1
	2	Training Office Specialist 10	Training Office Specialist 10
Supervisor/TO11	1	Initial Supervisor	Supervisor Level 1
	2	Training Office Specialist 11	Training Office Specialist 11
Supervisor/TO12	1	Initial Supervisor	Supervisor Level 1
	2	Training Office Specialist 12	Training Office Specialist 12
Supervisor/TO13	1	Initial Supervisor	Supervisor Level 1
	2	Training Office Specialist 13	Training Office Specialist 13
Supervisor/TO14	1	Initial Supervisor	Supervisor Level 1
	2	Training Office Specialist 14	Training Office Specialist 14
Supervisor/TO15	1	Initial Supervisor	Supervisor Level 1
	2	Training Office Specialist 15	Training Office Specialist 15
Supervisor/TO16	1	Initial Supervisor	Supervisor Level 1
	2	Training Office Specialist 16	Training Office Specialist 16
Supervisor/TO17	1	Initial Supervisor	Supervisor Level 1
	2	Training Office Specialist 17	Training Office Specialist 17
Supervisor/TO18	1	Initial Supervisor	Supervisor Level 1
	2	Training Office Specialist 18	Training Office Specialist 18
Supervisor/TO19	1	Initial Supervisor	Supervisor Level 1
	2	Training Office Specialist 19	Training Office Specialist 19
Supervisor/TO2	1	Initial Supervisor	Supervisor Level 1

Process ID (30 Char)	Approval Step Number	Step Name (100 Char)	Approval Role / Learner ID
	2	Training Office SPecialist 2	Training Office Specialist 2
Supervisor/TO20	1	Initial Supervisor	Supervisor Level 1
	2	Training Office Specialist 20	Training Office Specialist 20
Supervisor/TO3	1	Supervisor/Training Office Specialist 3	Supervisor Level 1
Supervisor/TO3	1	Initial Supervisor	Supervisor Level 1
	2	Training Office Specialist 3	Training Office Specialist 3
Supervisor/TO4	1	Initial Supervisor	Supervisor Level 1
	2	Training Office SPecialist 4	Training Office Specialist 4
Supervisor/TO5	1	Initial Supervisor	Supervisor Level 1
	2	Training Office SPecialist 5	Training Office Specialist 5
Supervisor/TO6	1	Initial Supervisor	Supervisor Level 1
	2	Training Office SPecialist 6	Training Office Specialist 6
Supervisor/TO7	1	Initial Supervisor	Supervisor Level 1
	2	Training Office SPecialist 7	Training Office Specialist 7
Supervisor/TO8	1	Initial Supervisor	Supervisor Level 1
	2	Training Office Specialist 8	Training Office Specialist 8
Supervisor/TO9	1	Initial Supervisor	Supervisor Level 1
	2	Training Office Specialist	Training Office Specialist 9
SUPSupervisor/TO12	1	Initial Supervisor	Supervisor Level 1
	2	Training Office Specialist12	Training Office Specialist 12
TO-1	1	Training Office Specialist 1	Training Office Specialist 1
TO-10	1	Training Office Specialist 10	Training Office Specialist 10
TO-11	1	Training Office Specialist 11	Training Office Specialist 11
TO-12	1	Training Office Specialist 12	Training Office Specialist 12
TO-13	1	Training Office Specialist 13	Training Office Specialist 13
TO-14	1	Training Office Specialist 14	Training Office Specialist 14
TO-15	1	Training Office Specialist 15	Training Office Specialist 15

Process ID (30 Char)	Approval Step Number	Step Name (100 Char)	Approval Role / Learner ID
TO-16	1	Training Office Specialist 16	Training Office Specialist 16
TO-17	1	Training Office Specialist 17	Training Office Specialist 17
TO-18	1	Training Office Specialist 18	Training Office Specialist 18
TO-19	1	Training Office Specialist 19	Training Office Specialist 19
TO-2	1	Training Office Specialist 2	Training Office Specialist 2
TO-20	1	Training Office Specialist 20	Training Office Specialist 20
TO-3	1	Training Office Specialist 3	Training Office Specialist 3
TO-4	1	Training Office Specialist 4	Training Office Specialist 4
TO-5	1	Training Office Specialist 5	Training Office Specialist 5
TO-6	1	Training Office Specialist 6	Training Office Specialist 6
TO-7	1	Training Office Specialist 7	Training Office Specialist 7
TO-8	1	Training Office Specialist 8	Training Office Specialist 8
TO-9	1	Training Office Specialist 9	Training Office Specialist 9
VERIFICATION	1	Training Office	Training Office

Approval Role ID (30 Char)	Description (100 Char)
AGENCY	Agency Approver
HCTO	Host Center Training Office
HRDR	Human Resources Development Rep
IEM	Integrated Enterprise Management Rep
LEARNING CENTER	Learning Center
NSSC	NSSC Procurement (IG)
NSC	OSMA & NSC
NSSC PROC	NSSC Procurement (IG)
NSSC Training (SP)	NSSC HR Training (SP)
PM-1	Program Manager 1
PM-2	Program Manager 2
PM-3	Program Manager 3
PM-4	Program Manager 4
PM-5	Program Manager 5
POC-APPEL	APPEL POC

Approval Role ID (30 Char)	Description (100 Char)
POC-LMD	LMD POC
POC-OTHAGNCY	Other Agency POC
RGI-COORD APPEL	APPEL Discipline RGI Coordinator
RGI-COORD LMD	LMD Discipline RGI Coordinator
RGI-COORD OTHAGNCY	OTHAGNCY Discipline RGI Coordinator
Supervisor Level 1	Supervisor Level 1
Supervisor Level 2	Supervisor Level 2
TO-1	Training Office Specialist 1
TO-2	Training Office Specialist 2
TO-3	Training Office Specialist 3
TO-4	Training Office Specialist 4
TO-5	Training Office Specialist 5
TO-6	Training Office Specialist 6
TO-7	Training Office Specialist 7
TO-8	Training Office Specialist 8
TO-9	Training Office Specialist 9
TO-10	Training Office Specialist 10
TRAINING COORDINATOR	Training Coordinator
TRAINING OFFICE	Training Office

Subject Areas

Subject areas are categories for items and/or competencies. Learners have the ability to browse a catalog by subject area. An Item can be associated with one or more subject areas. Please refer to appendix K for a complete list of subject areas.

Event-Based vs. Calendar-Based Item Assignments

Event-Based Item Assignments sets required and expiration dates to a particular time period. Event based assignments require that assigned learners complete the item over a specified period of time. Valid periods are days, weeks, months, quarters, and years.

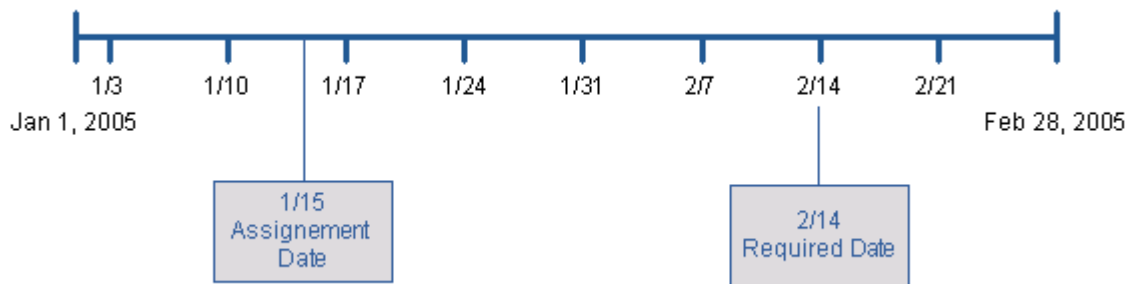
Calendar-Based Item Assignments sets required and expiration dates based on the date of last completion or assignment date of the item and the specified number of days for the initial period or retraining interval.

Below are examples of how it works:

Example One

- Event Based
- Initial Period: Days
- Initial Number: 30 Days.

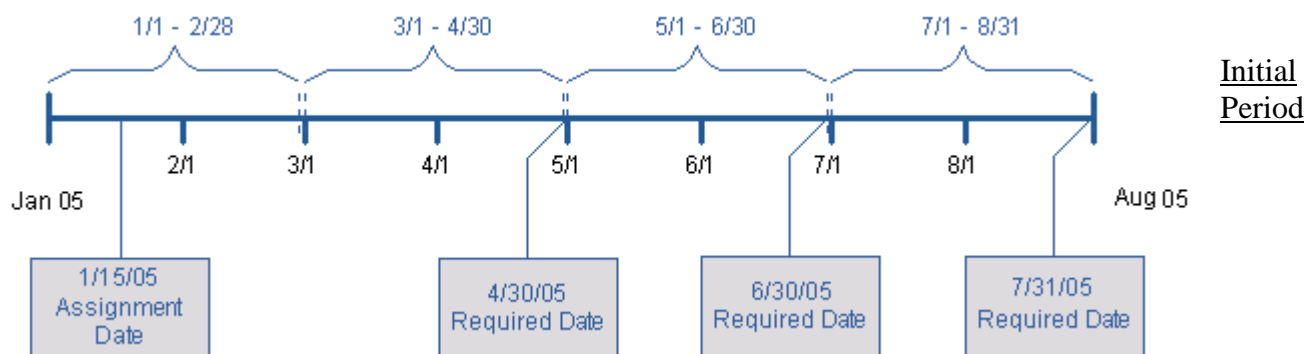
The initial period is "Days" and the initial number is "30 days." Therefore, learners must complete the item within 30 days of the Assignment Date.



Example Two

- Calendar Based
- Basis Date: January 1, 2005
- Initial Period: Months
- Initial Number: 2

In this Calendar Based example, the learner is required to complete the item by the end of every two month period.



The initial period specifies the number of days, weeks, months, quarters or years that can pass after the item is assigned to a learner within which the learner must successfully complete the item. The learner does not successfully complete the item within the initial period, the curriculum status is affected.

Retraining Interval

The retraining interval indicates how frequently, in days, weeks, months, quarters or years the learner must be retrained on this item

Item Substitutes Relationships

Substitutes allow you to indicate that the successful completion of a particular item also provides credit for another item. The substitute is automatically entered by the Plateau LMS as a separate learning event for a given learner when a learning event for the originating item is entered.

Opting to force credit means a separate learning event is recorded in the learners learning history for the selected item when the item granting substitute is successfully completed. This is regardless if the substitute item is on the learner's learning plan.

Item Pre-requisite Relationships

Pre-requisites are items that must be completed before a learner can self-register or launch the current item. If a learner's learning history does not include a successful completion status for one or more items that has been defined as a prerequisite, learners will be warned, but not prevented from registering in an offering of this item. The warning will also be seen when enrolling learners who have successfully completed an item that grants substitute for the prerequisite, but who have not completed the prerequisite item itself.

Completion Status

Completion Status indicates how the learner completed an item. Completion status triggers other functionality in the system. For example, "complete" will trigger recording of the learning event into the history tables while "failed" can change the status of a curriculum to incomplete. Each ID for the Completion Status must contain the Item Type ID. Example: COMPLETE-SURVEY, PASS-EXAM, etc. The five recommended completion statuses are listed below:

Completion Status ID	Credit	Completion Status Description
ASSESS_COMP	Y	Completed
ASSESS_INCOMP	N	Incomplete
ASSESS_SUBSTITUTE	Y	Substitute
BOOK_COMP	Y	Completed
BOOK_INCOMP	N	Incomplete
BOOK_SUBSTITUTE	Y	Substitute
BREIFING_COMP	Y	Completed
BRIEFING_INCOMP	N	Incomplete
BRIEFING_SUBSTITUTE	Y	Substitute
CERT_COMP	Y	Completed
CERT_INCOMP	N	Incomplete
CERT_SUBSTITUTE	Y	Substitute
CONFERENCE_COMP	Y	Completed
CONFERENCE_INCOMP	N	Incomplete
CONFERENCE_SUBSTITUTE	Y	Substitute
COURSE_COMP	Y	Completed
COURSE_INCOMP	N	Incomplete
COURSE_SUBSTITUTE	Y	Substitute
COURSE_EVAL_COMP	Y	Completed

Completion Status ID	Credit	Completion Status Description
COURSE_EVAL_INCOMP	N	Incomplete
COURSE_EVAL_SUBSTITUTE	Y	Substitute
DEVELOPMENT_PROGRAM_A_COMP	Y	Completed
DEVELOPMENT_PROGRAM_A_INCOMP	N	Incomplete
DEVELOPMENT_PROGRAM_A _SUBSTITUTE	Y	Substitute
DEVELOPMENT_PROGRAM_C_COMP	Y	Completed
DEVELOPMENT_PROGRAM_C_INCOMP	N	Incomplete
DEVELOPMENT_PROGRAM_C _SUBSTITUTE	Y	Substitute
DISCUSSION_COMP	Y	Completed
DISCUSSION_INCOMP	N	Incomplete
DISCUSSION_SUBSTITUTE	Y	Substitute
DOCUMENT_COMP	Y	Completed
DOCUMENT_INCOMP	N	Incomplete
DOCUMENT_SUBSTITUTE	Y	Substitute
EXAM_COMP	Y	Completed
EXAM_INCOMP	N	Incomplete
EXAM_SUBSTITUTE	Y	Substitute
FACILITATOR_COMP	Y	Completed
FACILITATOR_INCOMP	N	Incomplete
FACILITATOR_SUBSTITUTE	Y	Substitute
FELLOWSHIP_COMP	Y	Completed
FELLOWSHIP_INCOMP	N	Incomplete
FELLOWSHIP_SUBSTITUTE	Y	Substitute
LC_COMP	Y	Completed
LC_INCOMP	N	Incomplete
LC_SUBSTITUTE	Y	Substitute
MEETING_COMP	Y	Completed
MEETING_INCOMP	N	Incomplete
MEETING_SUBSTITUTE	Y	Substitute
OJT_COMP	Y	Completed
OJT_INCOMP	N	Incomplete
OJT_SUBSTITUTE	Y	Substitute
PHYSICAL_COMP	Y	Completed
PHYSICAL_INCOMP	N	Incomplete
PHYSICAL_SUBSTITUTE	Y	Substitute
READING_COMP	Y	Completed
READING_INCOMP	N	Incomplete
READING_SUBSTITUTE	Y	Substitute
SHADOW_COMP	Y	Completed
SHADOW_INCOMP	N	Incomplete
SHADOW_SUBSTITUTE	Y	Substitute
SEMINAR_COMP	Y	Completed
SEMINAR_INCOMP	N	Incomplete
SEMINAR_SUBSTITUTE	Y	Substitute
SOP_COMP	Y	Completed
SOP_INCOMP	N	Incomplete
SOP_SUBSTITUTE	Y	Substitute
SURVEY_COMP	Y	Completed
SURVEY_INCOMP	N	Incomplete

Completion Status ID	Credit	Completion Status Description
SURVEY_SUBSTITUTE	Y	Substitute
WORKBOOK_COMP	Y	Completed
WORKBOOK_INCOMP	N	Incomplete
WORKBOOK_SUBSTITUTE	Y	Substitute
WORKSHOP_COMP	Y	Completed
WORKSHOP_INCOMP	N	Incomplete
WORKSHOP_SUBSTITUTE	Y	Substitute
OTHER_COMP	Y	Completed
OTHER_INCOMP	N	Incomplete
OTHER_SUBSTITUTE	Y	Substitute

Item Custom Field

Custom columns allow administrators to use the SATERN to collect and track information on items that may be unique to an organization and are not captured elsewhere by the system. Administrators can specify that only certain values will be allowed for a custom column by setting the custom column to be referenced. One can then establish which reference values will be allowed for the custom column. Please see Appendix L for a list of Item Custom Fields and Scheduled offerings.

6.2 Curricula / Sub-Curricula

Curricula are made up of one or more items and are assigned to learners. One benefit of curricula is to identify those learners who are in compliance or qualified in a given area or position based on the completion of all the items within the curricula. The curricula also provide retraining on selected items that must be repeated on a recurring interval. Another benefit of curricula is to allow an administrator user to efficiently assign the same learning requirements to multiple learners and then track completion of the items as a group. Curricula can also be nested through sub-curricula.

Curriculum Status

A status of “Complete” is issued to the curriculum when any of the following occur:

- All required items in the curriculum have been successfully completed and recorded.
- The effective date of each item is in the future.
- Some of the required items are complete and the remaining required items have an effective date in the future.

A status of “Incomplete” is in effect when any of the following occur:

- A new curriculum is assigned to a learner and the effective date for any required Items is in the past.
- Any required item has not been successfully completed and recorded.
- A completed item’s retraining interval date has passed.
- The curriculum is modified with a new or revised item, and the effective date is not set for a future date.

Curriculum Type

Curriculum type indicates the nature of the content of the curriculum the learner is assigned. NASA will provide curriculum type values.

Assignment Type (Curriculum Default)

Assignment types are categories established to help prioritize a learner's learning needs by distinguishing between "need-to-have" and "nice-to-have" items in a curriculum. Note: You cannot have an effective date for any assignment types set to required "no." Any items that do not have an assignment type assigned are treated as not required; and required training dates will not be calculated for these items. Therefore, a learner's curriculum status will not be affected by his or her failure to successfully complete the required "no" item. Example assignment types are:

Requirement Type ID (30 char)	Required (Yes/No)	Description (40 char)
OPTIONAL	NO	Optional
RECOMMENDED	NO	Highly Recommended
REQUIRED	YES	Center Required
MANDATORY	YES	Federally Mandated

Curriculum Basis Date

The curriculum basis date is used as the starting date for event-based curriculum calculation. Set by the global default, the curriculum basis date can be updated for each curriculum.

Curriculum Force Incomplete

When the "Force Incomplete" option is enabled for a curriculum item, the system will calculate whether the status should be complete or incomplete based on the learner's latest attempt at completing any item in the curriculum. This option will prompt the Plateau LMS to recalculate the expiration and required dates based on the date and time of the last attempt regardless of whether or not the item was complete or incomplete.

Curriculum Retraining Period

The retraining period refers to the number of days between the last time a learner completed an item and when the item must be completed again.

Curriculum Effective Date

The effective date is the date when a new or revised item will be used for the calculation of item completion statuses and curriculum statuses. When you create an item, the default effective date is the current date; but you may decide to set it to a future date since the curriculum status of any learner who is assigned the curricula to which you are adding this new item would become "incomplete" as soon as the item is added. By making the effective date a future date, you are defining a "grace period" to allow students to complete the new item in the time allotted, without losing their curriculum.

Curriculum Auto Assignment and Removal

Curricula can be auto assigned or removed based on a learner's attributes. These auto features aid administrators in the management of a learner's learning plan and curricula assignment. By establishing the relationship between a learner's attributes and the curricula assignment/removal, a learner's curricula will update as his/her attributes change. There are 2 ways to establish this relationship: By Job Position or By Assignment Profile.

Curricula Assigned by Job Position

Curricula can be associated with Job Positions. When a learner is assigned a job position, the items contained within the curricula can automatically be assigned to the learner and added to the learning plan.

Assignment Profiles

The assignment profile provides a way to automate assigning curricula to a group of learners who share the same training needs. The assignment profile uses the common attributes of a group of learners to assign curricula. NASA will create these on an as-needed basis.

6.3 Catalogs

In the Plateau LMS, items and scheduled offerings can only be accessed by learners from a catalog. Each item or scheduled offering must be added to a catalog in order for it be accessed or purchased by learners. It is from the catalog that learners add items to their learning plans.

When a learner logs into the Learner Web Access portion of the Plateau LMS they will have access to the catalogs that are associated with either the domain or organization that is linked to their learner record. Also if the domain and organization structures are hierarchical the learner will also be able to view the catalogs that exist higher in the tree structure.

The following table lists the core catalogs. There are additional catalogs available in the SATERN LMS system.

Catalog ID (30 Char)	Domain ID	Description (100 Char)
ARC_CATALOG	ARC	Ames Research Center
DFRC_CATALOG	DFRC	Dryden Flight Research Center
EM_CATALOG	EM	Environmental Management
ENG_CATALOG	ENG	Engineering
EO_CATALOG	EO	Equal Opportunity
ETH_CATALOG	ETH	Ethics
EVM_CATALOG	EVM	Earned Value Management
EXPC_CATALOG	EXPC	Export Control
FRM_CATALOG	FRM	Financial & Resource Management
GRC_CATALOG	GRC	Glenn Research Center
GSFC_CATALOG	GSFC	Goddard Space Flight Center
HQ_CATALOG	HQ	NASA Headquarters
HR_CATALOG	HR	Human Resources
ICE_CATALOG	ICE	EMSD Integrated Collaborative Environment
IFMP_CATALOG	IFMP	Integrated Financial Management Program (IFMP)
ITA_CATALOG	ITA	Independent Technical Authority (iTA)
ITS_CATALOG	ITS	Information Technology Security
JSC_CATALOG	JSC	Johnson Space Center
KSC_CATALOG	KSC	Kennedy Space Center
LARC_CATALOG	LARC	Langley Research Center
MSFC_CATALOG	MSFC	Marshall Space Flight Center
NASA_CATALOG	NASA	NASA
NSSC_CATALOG	NSSC	NASA Shared Services Center
OH_CATALOG	OH	Occupational Health
PRC_CATALOG	PRC	Procurement
SAC_CATALOG	SAC	Security Awareness Campaign

Catalog ID (30 Char)	Domain ID	Description (100 Char)
SMA_CATALOG (not in system)	SMA	Safety and Mission Assurance
SSC_CATALOG	SSC	Stennis Space Center
TCHT_CATALOG	TCHT	Technology Transfer
SS_CATALOG	SKILLSOFT	SkillSoft

7) Online Content Management

Online content management encompasses the configuration and use of content and exams within the Plateau LMS from an administrative and instructional perspective. In the Plateau LMS, this primarily involves the creation and maintenance of Content Objects and Content Packages within the Plateau LMS database, the incorporation of Content Objects/Packages in online items, determination of appropriate playback characteristics to achieve the desired instructional objectives, and determination of what will constitute successful completion to achieve the desired training history records. Through AICC or SCORM, content hosted via the Plateau LMS can be bookmarked and tracked into learning history. Content objects can be a module of learning or an entire course. **Non-compliant courseware will not be included as part of Phase II, or will be manually entered by the client.**

Technical aspects of online content deployment such as communication method between courseware and the Plateau LMS database, resolution of firewall issues, performance and metadata mapping, courseware conversion, and execution of AICC, SCORM or native Plateau function calls, are handled separately in the Content Enabling workshop.

Object content is maintained by the owner of the content development process (currently MSFC).

Content Objects There are approx. 300 Content Objects in the system!

Content Object ID (30 Char)	Title (200 Char)
Import defaults will be used	Defaults will be used

Content Packages There are approx. 250 Content Packages in the system!

A content package is a group of content objects

Content Package ID (30 Char)	Title (200 Char)
Import defaults will be used	Defaults will be used

7.1 Objectives

An objective is a generic learning object such as a grouping of questions that have been created in the Plateau LMS Objectives section or in Plateau's Question Editor application. All of the questions in a given objective should measure the learner's mastery of a small closely related topic, process, task or unit of instruction in an online item. Objectives will be determined by NASA.

Objective Custom Field – (No Objective Custom Fields)

Custom columns allow administrators to use the Plateau LMS to collect and track information on objectives that may be unique to an organization and are not captured elsewhere by the system. Administrators can specify that only certain values will be allowed for a custom column by setting the custom column to be referenced. You can then establish which reference values will be allowed for the custom column.

Label	Col #	Referenced	Ref. ID Value or Field Description

7.2 Questions

A question is a single screen that appears in an exam/survey, giving learners an opportunity to demonstrate their ability to distinguish the correct answer from among a choice of possible answers. All of the questions in a given objective should measure the learner's mastery of a small, closely related topic, process, task or unit of instruction in an online item.

Question ID (30 Char)	Domain ID	Objective ID	Description (100 Char)

* Information required for this table will be provided after questions have been imported via the Plateau Question Editor.

There are over 4000 questions in the system!

Question Custom Field – (No Question Custom Fields)

Custom columns allow administrators to use the Plateau LMS to collect and track information on questions that may be unique to an organization and are not captured elsewhere by the system. Administrators can specify that only certain values will be allowed for a custom column by setting the custom column to be referenced. You can then establish which reference values will be allowed for the custom column.

Label	Col #	Referenced	Ref. ID Value or Field Description

7.3 Exam and Survey Objects

Exam and survey objects are database records that contains all the details of an online examination or survey, including the questions and objectives included by the exam or survey, the percentage grade required for passing, electronic proctoring requirements, messages displayed to learners before and after the exam, the exam's launch method, information about learner usage and other software behaviors.

Exam ID* (30 Char)	Domain ID*	Exam Type* (Sequential/ Free-form)	Pass Percentage*	Max Attempts*	Student Actions*		Exam Analysis*
					<input type="checkbox"/>	Proctor Code Required	
					<input type="checkbox"/>	Display Welcome Message	
					<input type="checkbox"/>	Stop and Resume before Scoring	
					<input type="checkbox"/>	Review Questions after Scoring	

Information required for this table will be provided after exams have been created via the Plateau Question Editor.

There are approx. 200 survey and exam objects in the system!

Exam and Survey Object Custom Field – (No Exam or Survey Object Custom Fields)

Custom columns allow administrators to use the Plateau LMS to collect and track information on exams and surveys that may be unique to an organization and are not captured elsewhere by the system. Administrators can specify that only certain values will be allowed for a custom column by setting the custom column to be referenced. You can then establish which reference values will be allowed for the custom column.

Label	Col #	Referenced	Ref. ID Value or Field Description

7.4 AICC Advance System Administrator Settings

The Lesson Status value is passed by vendors to determine the status of the content module. Acceptable values for Lesson Status are as follows:

Some content providers only use Lesson Status values of "Complete" and "Incomplete." This is an issue because Plateau only grants credit if a Lesson Status value of "Pass" is sent (this is in accordance with the AICC guideline definitions of "Complete" and "Pass").

The Plateau LMS interprets the values as follows:

AICC Lesson Status	Plateau Finished (Viewed but not mastered all the material)	Plateau Complete (Earned Credit)
Pass	YES	YES
Complete	YES	NO
Failed	YES	NO
Incomplete	NO	NO
Not Attempted	NO	NO

7.5 Question Editor Advance System Administration Settings

This file parses the files created by the Question Editor. The Question Editor is an independent desktop application, and if it is changed, may require a change in this file. This file should not be edited unless indicated by Plateau Systems.

7.6 Naming Conventions

Naming conventions for entities relating to Learning Management are:

Entity	Naming Convention
Item ID (30 char)	DmnID-ItemID (ex NASA-CAM98)
Curriculum ID (30 char)	DmnID-CurriculumID
Content Object (30 Char)	ItemID_Object01
Content Package (30 Char)	ItemID_Package01
Catalog ID (30 char)	DmnID_CATALOG
Objective (30 char)	ItemID_Objective01
Question (30 char)	Integer (ex. 12, 23)
Exam (30 char)	ItemID_Exam01
Survey (30 char)	Not in Use

See SATERN Business Rules and Process Guide for Administrator for additional detail.

Refer to documentation at TechDocs for additional information:

<https://dm.nssc.nasa.gov/servlet/dm.web.Explore?fid=4323>

8) Scheduling

A schedule offering is a specific scheduled event, such as "the HR101 class scheduled for October 15 in Room 320 at the Main Office," for which a database record is created. Either of two types of events can be scheduled in an offering: items (during which learning of some sort takes place) and activities (non-learning events that are accounted for on the schedule of a learners, instructor, or location; such as vacations, staff meetings, etc.).

Schedule Offering Attributes

GP suggests these attributes to be populated when creating a record::

- Schedule ID (system required)
- Item Type (system required)
- Item ID (system required)
- Domain ID (system required)
- Start Date (system required)
- Start Time (system required)
- Contact Name, Email and Phone Number (viewable by the learner)
- Registration Cut-off Date and Time (important for self-registration)
- Minimum Registration (important for APMs)
- Maximum Registration (important for self-registration and waitlisting)
- Notifications
- Catalog (important for learners to view and/or self-register)
- Self Registration option
- Supervisor Approval option

Items or Curriculum Threshold	500
--------------------------------------	------------

Schedule Offering ID

The schedule offering ID is auto-generated.

Schedule Offering Status (Active, Inactive, Cancel, Delete)

Schedule Offering records in the Plateau LMS can be set to active or inactive status. This status determines whether or not the record appears in searches and can be included as a part of role management and securities measures.

Schedule Offering Time Zone and Show in this Time Zone Setting

The time zone associate to the scheduled offering and the setting about whether or not it should appear in the selected time zone rather than in the local learner time zone, it an important functionality to considered when creating, editing a schedule offering. This functionality is supported by global settings to allow learner to select to display in their local time zones.

Approval Process ID/Approval Required

Each schedule offering will be assigned a specific approval process to support multi-level approvals.

Registration Cut-Off Date

The registration cut-off date is last date when enrollments to this offering should be allowed. Users are warned, but not prevented from making enrollments after this date.

Minimum and Maximum Registrations

Setting the minimum and maximum registration numbers employs the following functionality:

- If the actual registration is less than the minimum requirement, **SATERN** will display a warning pop-up.
- If a learner's self registration exceeds the maximum registration, the learner will be waitlisted.
- Administrators will be warned but not prevented if the registration exceeds the maximum registration.

Self Registration

This setting allows learners to register themselves in this offering from **SATERN**.

Notifications Templates

Schedule offering notifications are generated per registration type and are populated with default information from global and item settings.

Slotting

A registration slot is a reserved space in a Scheduled Offering. Slots are counted when calculating the number of current registrations. A registration slot is a reserved space in a Scheduled Offering. Slots are counted when calculating the number of current registrations.

Other Contacts (multiple instructors, site contact, item manager)

Schedule offerings allow you to assign additional contacts to receive registration notifications.

8.1 Business Processes

Close/Cancel Schedule Offering

Closing/Canceling Schedule Offering processes prompt other Plateau LMS functionality. Closing a schedule offering prompts commerce functionality, where canceling a schedule offering sends cancellation notices to learners.

Schedule Offering Resource Assignment

Each segment of a schedule offering can be assigned resources, such as instructors, locations, materials and equipment. Assigning an instructor employs functionality in other areas of the Plateau LMS, such as instructor notifications, default instructor in the Learning Event Recorder, and scheduling conflicts.

9) Commerce

The Commerce area of the Plateau LMS is designed to help track and update commercial transactions of learners and/or organizations defined in the learning management system. The system monitors not only the purchase and use of the items (items/materials) offered in the catalogs, but also tracks the costs associated with the items/materials in the system. The transactions include order management, chargeback adjustments, cancellation policies, master inventory, account codes, as well as a pricing rule for each catalog.

9.1 Account Code

The Account Code is a unique code created to track chargeback information of a transaction for the ledger.

Account Code ID (30 Char)	Domain ID	Profit Center	Description

9.2 Cancellation Policies

The Cancellation Policy is the set of rules used by the system to calculate what the learner is charged upon canceling the schedule offering of an item or activity.

9.3 Master Inventory

The Master Inventory is used to store all of the items and schedule offerings available in the Plateau LMS. Catalogs are populated from the master inventory.

9.4 Order Management

Orders are a request to purchase items in the Plateau LMS. These transactions comprise the commerce capability in the Plateau LMS.

9.5 Pricing Rules

Pricing Rules contains the ID, description and discount rate (percentage) for pricing items in the Master Inventory and catalogs.

9.6 Unused Order Tickets

Learners can be issued an order ticket number to make purchases from. The Plateau LMS allows administrators to set limits on the number of times this order ticket can be used.

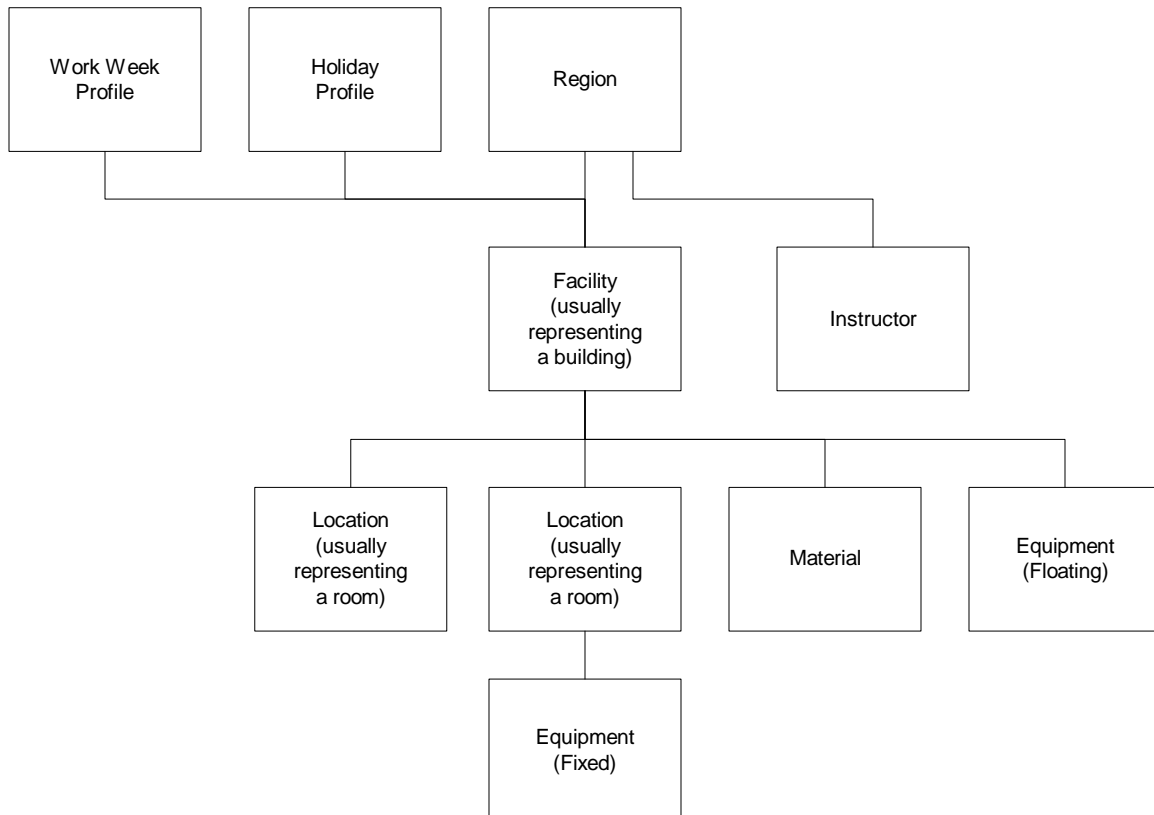
9.7 Naming Conventions

Naming conventions for entities relating to Commerce are:

Entity	Naming Convention
Account Code ID (30 char)	N/A
Cancellation Policy ID (30 char)	N/A
Order Number	N/A
Pricing Rule ID (30 char)	N/A

10) Resource Management

Resource Management is process of managing the following entities in SATERN: equipment, facilities, holiday profiles, instructors, locations, materials, regions and work weeks. These entities are then used by scheduled instances as items are scheduled. The following diagram shows the relationships among the various entities.



10.1 Equipment

Equipment is a physical resource used in the delivery of training, which are typically used over and over. Examples of equipment might include overhead projectors, television monitors, and VCR players. Equipment is a distinct resource category from materials, which are consumable in nature (i.e., cannot be used over and over). Equipment IDs will be entered in manually by each of the centers.

Equipment Type

The equipment type is a category or type of a given piece of equipment. Equipment types are used by the system to build the list of equipment that is available to support a particular schedule instance when it is scheduled. By default, the system will only display equipment of the type(s) that were built into an item's scheduling defaults.

Equipment Type ID (30 char)	Description (40 char)
ACP	Audio Cassette Player
BSTV	Big Screen TV
CABLE-MAC-PC	Mac/PC Adapter Cable
CAM-DIGITAL	Digital Camera
CAM-VIDEO	Video Camera
CDP	CD Player
CDR	CD Rom
CHALKBOARD-EASEL	Chalkboard/Easel
COMPUTER-DESKTOP	Desktop Computer
COMPUTER-LAPTOP	Laptop Computer
COMPUTER-LAPTOP-DS	Laptop w/ Docking Station
COMPUTER-MAC	Macintosh Computer
CORD-HEAVY	Extension Cord (Heavy Duty)
CORD-SMALL	Extension Cord (Small)
DVD_VCR	DVD_VCR Combo
EASEL	Easel (Portable)
EMS	EMS Setup
ERASEBOARD-EASEL	Dry Erase Board/Easel
EXT-CD-BURNER	External CD Burner
HEADPHONES	Headphones
LAMP-DESK	Desk Lamp
MONITOR	Monitor
MOUSE-REMOTE	Remote Mouse

Equipment Type ID (30 char)	Description (40 char)
PHONE-ANALOG	Analog Phone
PHONE-CONFERENCE	Conference Phone
PIC-TEL	PIC-TEL
PLAYER-DVD	DVD Player
PODIUM	Podium
POLYCOM	Polycom
PRESS-CHART	Press Chart
PRINTER	Printer
PROJECTOR-LCD-M	LCD Projector – Mounted
PROJECTOR-LCD-P	LCD Projector – Portable
PROJECTOR-OVERHEAD	Overhead Projector
PROJECTOR-SLIDE	Slide Projector
RECEIVER-STEREO	Stereo Receiver
SCREEN	Screen
SERVER	Server
SMARTBOARD	Smartboard
SPEAKERS	Speakers
TRIPOD	Tripod
TV-VCR	TV/VCR
TYPEWRITER	Typewriter
UMATIC	¾" Umatic
VCR	VCR
WHITEBOARD	Whiteboard

Equipment Status

The equipment status indicates the current status of a given piece of equipment. You determine which equipment statuses reflect that a piece of equipment is available to be scheduled for use, and which statuses reflect that equipment cannot be scheduled. Equipment status data is used by the Plateau LMS to provide a reliable list of available equipment for scheduling purposes, displaying only equipment with a status that allows for it to be scheduled.

Equipment Type ID (30 char)	Can Be Scheduled	Description (40 char)
ACTIVE	Y	Available for Use
BROKEN	N	Unavailable & needs repair
LOANED	N	Unavailable (Out on Loan)
LOST	N	Lost
MAINT	N	Out for Maintenance
ON ORDER	N	On Order

10.2 Facility

A facility is a logical construct to support a unique work schedule. Facilities may be linked to other training resources (locations, materials, equipments, etc) and usually represent a building. Facilities will be entered by each center.

10.3 Holidays

A holiday profile is a collection of holidays that are associated to a specific training facility. The profile provides a warning when scheduling on a holiday. The Holiday Profile will be maintained by NSSC.

10.4 Instructors

Instructors are resources that deliver training. Their definition provides the ability to manage this resource (cost, skills, and demographics). Instructors will be entered by each center.

10.5 Location

A location defines a classroom, conference room, or some specific area managed by the training organization. Immobile equipment is assigned to a location. Typically a location may be a room and the location type is used to logically group locations. Locations will be entered by each center.

Location Type

Location types are categories that describe learning locations.

Location Type ID (30 char)	Description (40 char)
AUDITORIUM	Auditorium
BREAKOUT	Breakout Room
CLASS-PC	Computer Equipped Classroom
CLASS-STD	Standard Classroom
CONFERENCE ROOM	Conference Room
LAB	Classroom Lab
OFFSITE-COST	Offsite Location With Cost
OFFSITE-NOCOST	Offsite Location Without Cost

10.6 Materials

Materials are consumable supply items that are used up during learning, such as pens, handouts, giveaways, etc. For each kind of material you decide to track, you create a material type and then assign the material type to a facility, establishing an inventory record for the material at a given facility. Material inventory levels are updated directly by editing the number on hand in the Materials tab of the Facilities section or the Inventory tab of the Material Types section. Materials will be entered by each center.

10.7 Region

A region is a grouping of facilities. Often a region is a city. Regions will be entered by each center.

10.8 Work Week Profile

Work weeks are those days of the week, defined by your organization, when learning can be scheduled at a facility.

Work Week Profile ID (30 Char)	Description (40 Char)
5-Day-M-F	5 Day Work Week Mon-Fri
7-Day-S-S	7 Day Work Week Sun-Sat

10.9 Naming Conventions

Naming conventions for entities relating to Resource Management are:

Entity	Naming Convention
Equipment ID (30 Char)	Dmn ID-Equipment ID
Facility ID (30 char)	Dmn ID-Facility ID
Holiday Profile ID (30 char)	Federal-Holidays-Year
Instructor ID (30 char)	Dmn ID-Instructor First Initial Last Name
Location ID (30 char)	Dmn ID-FacilityID-Location ID
Material ID (30 char)	Dmn ID-Material ID
Region ID (30 char)	Not in Use
Work Week Profile ID (30 char)	5-Day-M-F

See SATERN Business Rules and Process Guide for Administrator for additional detail.

11) Plateau Standard Reports

The Plateau standard reporting feature contains 68 reports. Each report menu provides options of grouping and sorting output in various ways. In addition to the standard reports listed below, the system allows for the creation of custom reports, external reports, recurring report jobs, saved reports and background report jobs. The process of generating these reports has been outlined on a step-by-step basis to make it as easy as possible. This can be accomplished by navigating to the report group, and clicking the name of the report that needs to be generated. One will see a brief description of the report with a step-by-step outline of how to generate it.

All reports are downloadable into XML, CSV, HTML and PDF formats.

Note: All standard reports will be provided ‘out of the box’ for NASA for all phases of the project. Some reports will contain no data for Phases I and II (i.e. Competency Assessment Data), and NASA is prepared to handle questions from learners related to this.

11.1 Assessment Reports

Assessment Process Results

This report displays the latest results for the selected assessment process. Depending on how far the process has progressed, the report will show competency information including the average rating for those learners who have been assessed, a list of the Rating Criteria, and a list of learners and their individual scores.

Assessment Survey Data

This report displays information about the competencies assigned to the selected assessment survey as well as the assessment processes that use the survey to assess learners.

Competency Assessment Data

This report lists information about assessment surveys that are associated with the selected competencies. The report also displays data for assessment processes that use the competencies to assess learners.

Organizational Assessment Data

This report lists information about organizations and their related competencies.

11.2 Competency Reports

Competencies with Related Items

The **Competencies with Related Items** report shows you the competencies included in the report and the items related to the selected competencies. The system groups the data in this report by competency. One cannot change this system default.

Competencies with Related Competency Profiles

The **Competencies with Related Competency Profiles** Report shows one, for the competencies included in the report, the related competency profiles to the selected competencies.

Competency Data

The **Competency Data Report** shows for each competency included in the report, the competency type and domain, and its related subject areas and competency profiles.

Competency Profile Data

The **Competency Profile Data Report** shows, for each competency profile included on the report, the date the competency set was created, the date last modified and user who last modified the competency profile, and any related competencies. By default, the output is grouped by competency profile.

Competency Profile with Related Job Positions

The **Competency Profiles with Related Job Positions Report** shows, for the competency profiles included on the report, the job positions that include the competency profile. The report output is grouped by competency profiles.

11.3 Document Reports

Document Data

The **Document Data Report** displays all of the data stored the document records that are included in the report, including the document type, source, location, revision and approval information. All linkages between a document, and tasks, curricula, and items, are listed on the report.

Document Review Flag

The **Document Review Flag Report** shows whether the relationship between the documents that are listed in the report and any tasks, curricula, and items for the documents included in the report, should be reviewed because of a revision.

11.4 Exam and Survey Reports

Exam/Survey Objects

The **Exam/Survey Objects Report** shows, for all the exams and surveys chosen to include on the report, a summary of the exam or survey's features and design, such as the objectives and questions covered by the exam or survey, the passing grade required for the overall exam and for each objective, the number of minimum and maximum questions from each objective, and the scoring weight (see Points column on output) assigned to each objective and to each question that has been included independently from any objective.

The report also shows what actions will be taken that depends upon a learner's passing or failure upon completion.

Learner Exam/Survey Data

The **Learner Exam and Survey Data Report** shows all the learners, exams and surveys chosen to include on the report, the details of learners' performance on exams and surveys, including external exams. One can choose whether the report should include details of the learner's performance with regard to individual questions, to the exam's associated objectives, and even to print each question on the report.

11.5 Item and Curriculum Reports

Curricula with Related Job Positions

The **Curriculum with Related Job Position Report** shows which job positions include the curriculum. The report is always grouped by curriculum.

Curriculum Data

The **Curriculum Data Report** shows the curriculum's domain, whether or not it is active, the date of creation, and some detail about any related items, job positions, and documents.

Item Data

The **Item Data Report** displays item data. If many items will be included in a detail report, the result can be quite lengthy.

Item Object Details

The **Item Object Details** report contains details about the groups of content objects, the content objects themselves, and exams or surveys that are included in the online item.

Items with Prerequisite Items

The **Items with Prerequisite** Items report lists those items that have been defined as prerequisites.

Items with Related Documents

The **Items with Related Documents** report shows the documents related to the item(s). The output is always grouped by item; you cannot change the default grouping.

Substitute Relationship

The **Substitute Relationship** report shows those items for which a substitute relationship has been established, and what completion status goes on a Learner's record when he or she is given credit for completing an item via substitute.

11.6 Learner Reports

Certificate of Completion

The **Certificate of Completion** is a program that can be used to print certificates of completion for selected items and Learners. The certificates may be printed on blank and white paper or custom paper stock.

Cumulative Gap Analysis

The **Cumulative Gap Analysis Report** shows one, for those competencies and those learners selected to include in the report, the average gap between the learners' assessed ability and the mastery level required in the learner's competency profile. This is a statistical summary report for the selected learners; no individual learner information will be shown unless one chooses to run the report for only one learner at a time.

Learner Competency Assessment

The **Learner Competency Assessment Report** shows one, for the learners and competencies selected to include in the report, the learner's required mastery level, their assessed mastery level, and for each competency, the date of the last assessment. The report output can be grouped either by learner or by competency, and can mask learner IDs if necessary. Grouping the report by learner is a convenient way to view the competency profile of each learner included in the report.

Learner Competency Profiles Status

The **Learner Competency Set Status Report** shows one, for the learners and competency profiles chosen to be included in the report, the date when the competency profile was assigned to the learner and whether or not the learner has completed the requirements of the competency profile. The report output can be grouped either by learner or by competency profile, can show competency detail, and mask the learner IDs, if necessary.

Learner Conflict

The **Learner Conflict Report** shows the dates, times and schedule offerings conflict for the specified Learners.

Learner Curriculum Item Status

The **Learner Curriculum Status Item Report** shows one, for the learners and curricula chosen to be included in the report, the curriculum assigned to each learner and their items. The completion date, completion status, and required date for each item are included. One can also choose to mask the learner IDs if necessary.

Learner Curriculum Status

The **Learner Curriculum Status Report** displays the curriculum status of the selected Learner(s) for the selected curriculum(s). The report will display curriculum that are complete, incomplete or both. The report will also display the status at an item detail level.

Learner Data

The **Learner Data Report** shows a repository of information concerning the item.

- **Summary Version** includes only basic Human Resources-type information for the Learners specified.
- **Detail Version** includes a comprehensive report of the Learners' curriculum status, current item needs and required dates, competency profile assignments, assigned competencies with required and assessed mastery levels, and the Learner's training history.

Learner Item Status

The **Learner Item Status Report** shows each Learner's completion status for the items they participated in during the date range specified. If no date range is specified, all records will be included. Substitute relationships and other completion statuses can also be displayed in this report.

Learner Learning History

The **Learner Learning History Report** shows the learning events in which the Learner participated during the date range specified. The output is always grouped by item.

Learner Learning Hours

The **Learner Learning Hours Report** shows the total number of "hours" of a specified type that the Learner has completed. The report can show total hours by credit hours, CPE hours, contact hours or total hours.

Learner Learning Needs

The **Learner Learning Needs Report** shows the Learners' outstanding training requirement(s) for the item or items specified. Required dates of training for each item are also included, where applicable.

Learner Learning Plan

The **Learner Learning Plan Report** shows the items that are included in a Learner's development plan, required dates, and whether/when the Learner has completed the item. The report is organized by Learner and can be sorted chronologically, by item or by curriculum.

Learner Online Item Status

The **Learner Online Item Status Report** shows the Learner's current progress through online items. The report is organized by item, so the status of all Learners in that item can be viewed before any individual Learner's status is reported. A Learner's progress through an online course is reported at the content module level of detail.

Learner Created Account

The **Learner Self-Registration Report** shows the Learner ID, name, date and time the self-registration record was created and the Learner's phone number.

Learner Self-Registration/Withdrawal

The **Learner Self-Registration/ Withdrawal Report** shows each Learner's ID, name, the schedule ID, the related items, registration status, registration cut off date, tuition refund date, and registration date. Learner can be selected based on multiple criteria.

11.7 Reference Reports

Approval Process Data

Approval Role Coverage

Approval Role Data

Approvals Status

External Request Data Report

External Request Tuition

Holiday Profile

The **Holiday Profile Report** shows you, for each holiday profile selected, the facilities to which it has been applied; and the names, dates, and database ID of each holiday that is included in each profile. It is important to note that new holiday profiles must be created for each calendar year. The Holiday Profile will be maintained by NSSC.

Item List

The **Item List Report** shows the item type and item ID, the revision date, and the title.

Item Type List

The **Item Type List Report** shows one, for the item(s) you have selected to include in the report, the item type and item ID, the revision date, and the title.

Job Position Detail

The **Job Position Detail Report** shows you, for each job position included in the report output, the curricula and/or competency profiles to which it is related.

11.8 Registration Reports

Class Roster

The **Class Roster Report** shows the instructor and Learners who have been scheduled. The report provides space for Learners who are on the registration list to sign their names and date their signatures.

Item Requests

The **Item Requests Report** shows which Learners have requested which items but have not yet been enrolled or waitlisted in a schedule offering of the item.

Registration Status

The **Registration Status Report** shows a detailed list of registration information. When grouped by instance, it might make a great class roster for an instructor. When grouped by Learner, it takes on the appearance of a class schedule for each individual Learner.

Slot Status

The **Slot Status Report** shows the current status of any slots that have been purchased. Where Learner names have been identified to fill the slots, the Learner names are included on the report, along with the registration status and schedule information.

11.9 Resource Reports

Custom Resource Data

The **Custom Resource Data Report** shows any base or additional costs associated with the custom resource selected.

Equipment Data

The **Equipment Data Report** provides you with a separate page of information for each individual piece of equipment of the equipment types that you include in the report. The report shows for each equipment, the **ID, Serial Number, Assigned Location, Status, Domain, and Hourly Cost** of operation.

Equipment Status

The **Equipment Status Report** provides a separate line of information for each individual piece of equipment of the equipment types and statuses that is chosen to be included in the report (both criteria must be provided in order to run the report). The report includes each item's ID, assigned location, status, and domain.

Equipment Utilization

The **Equipment Utilization Report** shows one, for the equipment types selected within a specified date range, the number of offerings for which each individual piece of equipment has been scheduled, and the total number of hours the equipment is scheduled to be in use.

Facility Data

The **Facility Data Report** shows the management and identifying information of each facility record included on the report. It then lists each facility's location, assigned equipment, and material types, quantity on-hand, and reorder level.

Instructor Data

The **Instructor Data Report** shows the instructor's cost per hour, e-mail address, items the instructor is qualified to teach, and other system management information.

Instructor Proctor Codes

The **Instructor Proctor Codes Report** prints the proctor codes for the date range and instructors specified. The report can be sent to proctors for reference.

Location Data

The **Location Data Report** shows management data for each location you include in the report; include location type, domain, capacity, operating cost rate, and any equipment that is assigned to the location.

Location Utilization

The **Location Utilization Report** shows the number of schedule offerings in each location listed on the report and the total number of hours associated with those schedule offerings. The report is organized by location type.

Material Data

The **Material Data Report** shows for each material type included in the report, the facilities where inventories of the material type are traced, and the items in which the material type is used. The facility data includes the current inventory level and the reorder point.

Region Data

The **Region Data Report** shows the facilities located within the region, and the instructors that have been assigned to the region.

Resource Conflict

The **Resource Conflict Report** shows existing scheduling conflicts involving locations, instructors, and equipment. The basic organization of this report cannot be changed. It is divided into three groups: one for each of the resource types upon which it reports.

11.10 Scheduling Reports

Certificate of Completion

The **Certificate of Completion** is a program that can be used to print certificates of completion for selected items and Learners. The certificates can be printed on blank and white paper or custom paper stock.

Class Data

The **Class Data Report** displays all of the information about a class. This includes the basic information such as description, domain, and maximum capacity. It also includes the custom columns, the related Learners, and the related scheduled offerings.

Class Location

The **Class Location Report** displays, by class and by date, where a Learner in the class is supposed to be on a given date. The report shows the Learners and the schedule offering segments on the axis of a matrix, and the location that the Learner was supposed to be for the segment.

Class Progress

The **Class Progress Report** displays by class, the progress of all of the Learners in a class. The report shows the Learners and the schedule offerings of the class in a matrix format, with the completion status of each offering for each Learner inside the matrix.

Learning Calendar

The **Learning Calendar Report** shows all the training events scheduled for the day. The report output is shown in a table, rather than in calendar format.

Schedule Offering Data

The **Schedule Offering Data Report** shows detailed information about each existing schedule offering including the item scheduled, dates scheduled, registration and waitlist data, instructor data, segment data, and delivery costs.

11.11 Custom Reports

Report Name	Report Description	Definition & Configuration
CustomLearnerItemStatus	Custom Learner Item Status report for running it on a specific domain.	See Appendix D for Custom Reports Definition & Configuration
LearnerItems	Learner Item Status report with custom fields	See Appendix D for Custom Reports Definition & Configuration

12) Testing Approach

NASA's LMS initiative will be tested for accuracy on three levels, the Configuration Prototype, User Acceptance Testing of the system for configuration purposes, and ensuring the online content (Content Objects/Items) is configured correctly.

12.1 Configuration Prototype and Unit Testing

The configuration prototype consists of the branding of the LMS and the configuration of the system to include the domain hierarchy and user roles defined during the Functional Workshops. The testing of the prototype will be conducted by a select group within NASA. The testing group will be identified prior to the creation of the configuration prototype by NASA for validation purposes. After each training session, NASA configuration prototype team members will exercise the configuration prototype for the recently trained scenarios. Feedback on application performance will then be provided to the GP integration team to validate configuration decisions as described in this document.

12.2 User Acceptance Testing (UAT)

UAT validates the application meets NASA requirements defined in the Interagency Agreement (IAA) and verifies the configuration and customizations described in this document have been implemented. The UAT scenarios test the functionality/workflows of Plateau. The Plateau Product Development Team (NASA-PDT) team is responsible for developing the test scenarios. The GoLearn Product Development Team (GLPDT) is responsible for providing three UAT script templates as examples to aid in the test scenario development effort.

Initial UAT

Initial UAT scenarios test the application configuration including workflows and branding of Plateau. The UAT test scenarios are organized based on the Learner, and Administrative user roles. Initial UAT does not test either the On-line Content Integration or the customizations described in this document.

Initial UAT will be conducted on the Staging instance of Plateau. The following table presents the test participants and associated UAT responsibility.

Test Participants	Responsibilities
NASA-PDT	Develop and execute the UAT test scenarios
Verification and Validation (V&V) team	<ul style="list-style-type: none">observe the testing to ensure the Initial UAT is conducted in accordance with the Coordinated Test

	Plan <ul style="list-style-type: none"> ensure any discrepancies are properly recorded
Training Development team (Vertex)	observe the testing to aid in the development of training materials
GLPDT	provide technical support

UAT Retest

UAT Retest scenarios test the configuration, branding, and customization of the application; and are conducted after the Prototype Baseline has been established.

UAT Retest will be conducted on the Test instance of Plateau and will use the same domains as the Initial UAT. The following table presents the test participants and associated UAT Retest responsibility.

Test Participants	Responsibilities
Verification and Validation (V&V) team	<ul style="list-style-type: none"> update Initial UAT scenarios <ul style="list-style-type: none"> correct any discrepancies identified during Initial UAT include steps to test approved customizations observe the testing to ensure the UAT Retest is conducted in accordance with the Coordinated Test Plan ensure any discrepancies are properly recorded
NASA-PDT	provide technical support
GLPDT	provide technical support

12.3 Production Verification Testing (PVT)

PVT validates that the configuration and branding as defined in this document have been successfully implemented in the Production instance of Plateau. PVT scenarios verify system settings, reference data, domain structure and user interface. PVT scenarios also do not include verifying data migration which is the responsibility of each site.

PVT is conducted in the Production environment after the prototype baseline has been established and promoted to the Production instance. PVT test scenarios are executed using an LMS Administrator or Learner user account. The following table presents the test participants and associated PVT responsibility.

Test Participants	Responsibilities
Verification and Validation (V&V) team	<ul style="list-style-type: none"> execute test scenarios ensure any discrepancies are properly recorded
NASA-PDT	provide technical support
GLPDT	provide technical support

12.4 Online Content

Online Content metadata will be migrated to the LMS system and configured into Content Objects and Items within the system. Items will be assigned to Catalogs in various Domains in the domain hierarchy of the organization within Plateau. The online content will be tested as part of the UAT effort in order to capture the validation of the migration of information. Content objects linking to content on all content servers should be tested.

13) Branding User Interface Customization

The user interface customization refers to the Plateau specific URL and the graphical presentation of the system. Only mandatory changes for web compliance will be included for Phase II (e.g. 508 compliance). Other ‘nice-to-haves’ will be included as they are identified.

13.1 URL

The URL for the LMS is www.saturn.nasa.gov .

13.2 Color Scheme

The color scheme follows the general color scheme of NASA, as has been used on their SOLAR site.

13.3 Fonts

The available Plateau fonts will be used.

13.4 Buttons

The available Plateau buttons will be used.

13.5 Layout

The generic Plateau page layouts will be used.

Header

The NASA logo is displayed in the top left corner of each page of the LMS for both Learner and Administrator URLs. The title, “*SATERN*” follows the NASA Logo on all pages.

The NASA logo is displayed in the left hand corner of the logon and welcome pages only of both the Learner and Administrator URLs.

Below is the header layout:



SATERN
System for Administration, Training, and
Educational Resources for NASA

13.6 Logos

The Plateau logo is not to be used. The NASA logo replaces the Plateau logo.

13.7 Text

NASA specific language is displayed on the Learner and Administrator logon and introduction pages.

We need to revise some of the text referring to each menu option.

13.8 SATERN Learner Interface Login

This is a U.S. Government Computer.

This system is for the use of authorized users only.

By accessing and using the computer system, you are consenting to system monitoring, including the monitoring of keystrokes. Unauthorized use of, or access to, this computer system may subject you to disciplinary action and criminal prosecution.

Attention all users running Mozilla© on Macintosh: Portions of this site may not function properly with your browser. To ensure maximal functionality, please download the following plugin [JavaEmbeddingPlugin 0.9.4](#).

To learn more about SATERN and its many features, please look over the [SATERN tutorial](#).

For SATERN assistance, contact the HELP DESK by email [NASA-satern.support@nasa.gov](mailto:nasa-satern.support@nasa.gov) or at 1-877-NSSC-123 (1-877-677-2123). Support hours are from 8am - 8pm ET.

13.9 SATERN Administrator Interface Login

The login page will include the following text:

This is a U.S. Government computer.

This system is for the use of authorized users only.

By accessing and using the computer system, you are consenting to system monitoring, including the monitoring of keystrokes. Unauthorized use of, or access to this computer system may subject you to disciplinary action and criminal prosecution.

14) System Architecture

Plateau is built as a multi-tiered application within a J2EE-compliant framework. The principle high-level features of the architecture are separate database, application and presentation layers. NASA, as part of the current Phase of its LMS initiative, will have both a Development and Production environment created. The two environments will work independently of one another, while hosted in the same facility.

14.1 NASA Environments

The Plateau Environment includes a Web server, Application server, and Database server to support Plateau for development purposes. Organizations within the U.S. Government (no private entities) that are part of the GoLearn initiative will be sharing the entire environment for development purposes with the exception of a separate database instance for each of the government organizations.

Development Environment (Standard) - NASA GP Hosting Specs for Plateau:

3-Tier configuration		
Qty	Item	Use
1	N31-XUB2-9S-204AV2 Sun Fire V210 Server (Shared), 1 1-GH UltraSPARC IIIi Cu Processors w/ 1-MB L2 Cache Each, 2-GB Memory, 2 36-GB 10000 RPM Ultra 3 SCSI Drive, 4 10/100/1000-Mbps Ethernet Ports, ALOM Remote Manager, Solaris 8 Pre-Installed	Apache Webserver/content server First tier
1	N31-XUB2-9S-204AV2 Sun Fire V210 Server (Shared), 2 1-GH UltraSPARC IIIi Cu Processors w/ 1-MB L2 Cache Each, 2-GB Memory, 2 36-GB 10000 RPM Ultra 3 SCSI Drive, 4 10/100/1000-Mbps Ethernet Ports, ALOM Remote Manager, Solaris 8 Pre-Installed	Weblogic Application server (Configuration requires a 4 CPU License) 2x per v210
1	A35-WIFE-2GRB1 Sun Fire 280R Server (Shared), 2 1.2-GHz UltraSPARC III Processors w/ 8-MB External Cache, 2-GB Memory, 2 73-GB 10000 RPM FC-AL Disk Drives, 1 DVD-ROM, 2 560-Watt Power Supplies, Solaris 8 & 9 Operating Environments Pre-Installed	Requires Veritas cluster service and attached StorEdge 3351 storage array.
1	SE3510, 876GB storage array. (Shared)	For Database storage.

Require a v210 standby just in case one would have a hardware fault.

Application Server requires Weblogic license per processor.

Database Server requires Oracle 9 license per processor.

Web server requires Apache.

Staging/Training NASA (Standard) GP Hosting Specs for Plateau:

3-Tier configuration

Qty	Item	Use
1	N31-XUB2-9S-204AV2 Sun Fire V210 Server (Shared), 1 1-GH UltraSPARC IIIi Cu Processors w/ 1-MB L2 Cache Each, 2-GB Memory, 2 36-GB 10000 RPM Ultra 3 SCSI Drive, 4 10/100/1000-Mbps Ethernet Ports, ALOM Remote Manager, Solaris 8 Pre-Installed	Apache Webserver/content server First tier
1	N31-XUB2-9S-204AV2 Sun Fire V210 Server (Dedicated), 2 1-GH UltraSPARC IIIi Cu Processors w/ 1-MB L2 Cache Each, 2-GB Memory, 2 36-GB 10000 RPM Ultra 3 SCSI Drive, 4 10/100/1000-Mbps Ethernet Ports, ALOM Remote Manager, Solaris 8 Pre-Installed	Weblogic Application server (Configuration requires a 4 CPU License) 2x per v210
1	A35-WIFE-2GRB1 Sun Fire 280R Server (Shared), 2 1.2-GHz UltraSPARC III Processors w/ 8-MB External Cache, 2-GB Memory, 2 73-GB 10000 RPM FC-AL Disk Drives, 1 DVD-ROM, 2 560-Watt Power Supplies, Solaris 8 & 9 Operating Environments Pre-Installed	Requires Veritas cluster service and attached StorEdge 3351 storage array.
1	SE3510, 876GB Storage Array	For Database storage.

Require 2 Shared Load Balancers

Require a v210 standby just in case one would have a hardware fault.

Application Server requires Weblogic license per processor.

Database Server requires Oracle 9 license per processor.

Instance	URL
Development	N/A
Staging	https://nasastg.gphosting.com
Training	http://nasatrn.gpehosting.com
Production	https://satrn.nasa.gov

14.2 NASA Production Environment

The Production Environment, like the Development Environment, will include a Web server, Application server, and Database server to support the LMS. The government organizations as part of the initiative will be sharing the same firewall for access to the LMS application. NASA, in this environment, will have a dedicated Web Server and Application server for their use.

Production NASA (Standard) GP Hosting Specs for Plateau:

3-Tier configuration

Qty	Item	Use
4	N31-XUB2-9S-204AV2 Sun Fire V210 Server (Dedicated), 2 1-GH UltraSPARC IIIi Cu Processors w/ 1-MB L2 Cache Each, 2-GB Memory, 2 36-GB 10000 RPM Ultra 3 SCSI Drive, 4 10/100/1000-Mbps Ethernet Ports, ALOM Remote Manager, Solaris 8 Pre-Installed	Apache Web server (Configuration requires a 4 CPU License) 2x per v210
4	N31-XUB2-9S-204AV2 Sun Fire V210 Server (Dedicated), 2 1-GH UltraSPARC IIIi Cu Processors w/ 1-MB L2 Cache Each, 2-GB Memory, 2 36-GB 10000 RPM Ultra 3 SCSI Drive, 4 10/100/1000-Mbps Ethernet Ports, ALOM Remote Manager, Solaris 8 Pre-Installed	Weblogic Application server (Configuration requires a 4 CPU License) 2x per v210
1	A35-WIFE-2GRB1 Sun Fire v440 Server (Dedicated), 2 1.2-GHz UltraSPARC III Processors w/ 8-MB External Cache, 2-GB Memory, 2 73-GB 10000 RPM FC-AL Disk Drives, 1 DVD-ROM, 2 560-Watt Power Supplies, Solaris 8 & 9 Operating Environments Pre-Installed	Requires Veritas cluster service and attached StorEdge 3351 storage array.
1	SE3510, 876GB Storage Array	For Database storage.

Require 2 Shared Load Balancers

Require a v210 standby just in case one would have a hardware fault.

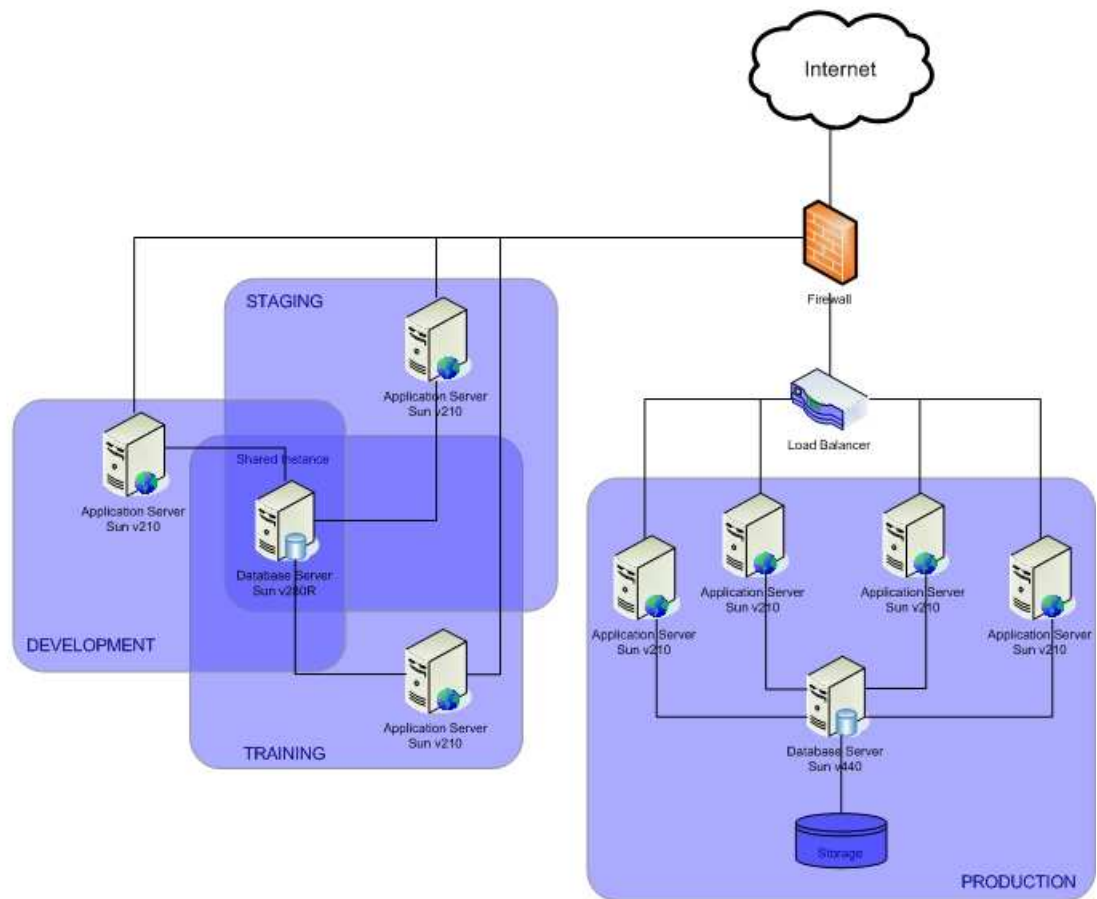
Application Server requires Weblogic license per processor.

Database Server requires Oracle 9 license per processor.

14.3 System Architecture Diagram



NASA Network Diagram



14.4 System Performance

Response Times

Task	Goal	Threshold (Minimum)
Service Availability (measured 24/7)	99%	95%
User Response Time – Plateau Specific – Based on minimally congested T1 connection Standard Pages: User Login, Course Catalog, Search,	Average 4 Seconds per page	Average 6 seconds per page

Task	Goal	Threshold (Minimum)
SkillSoft courses	expected to load in under 2:00 minutes	expected to load in under 2:00 minutes
User Response Time – Integrated Application	Average 5 Seconds per page (95% of transactions)	Average 8 seconds per page (90% of transactions)

14.5 Environments Overview

	Development	Training	Staging	Production
Purpose	GP use only. To keep a standard baseline where any troubleshooting will initially take place.	NASA's training instance for formal or informal training. GP will use a standard Training schema dmp file and "rollback" to that configuration file as NASA requests.	Staging is used primarily for any testing activities or any changes requests completed by GP that need NASA's verification. Upon NASA's verification of changes in Staging, they will be promoted to Production.	NASA's live Production instance, load-balanced across 4 web/applications server with a round robin load balancing strategy.
Plateau	v5.5 SP1, Patch 11, 12, 16	v5.5 SP1, Patch 11, 12, 16	v5.5 SP1, Patch 11, 12, 16	v5.5 SP1, Patch 11, 12, 16
Apache	v2.0.5.3	v2.0.5.3	v2.0.5.3	v2.0.4.8
Web Logic	v8.1 SP4	v8.1 SP4	v8.1 SP4	v8.1 SP4
Oracle`	v9.2.0.4	v9.2.0.4	v9.2.0.4	v9.2.0.4
External IP	N/A	128.121.42.14	128.121.42.19	168.143.177.57
External URL	N/A	https://nasatrn.gpehosting.com	https://nasastg.gpehosting.com	https://saturn.nasa.gov

14.6 Custom Content Uploading Process Overview

NASA Process Flow

